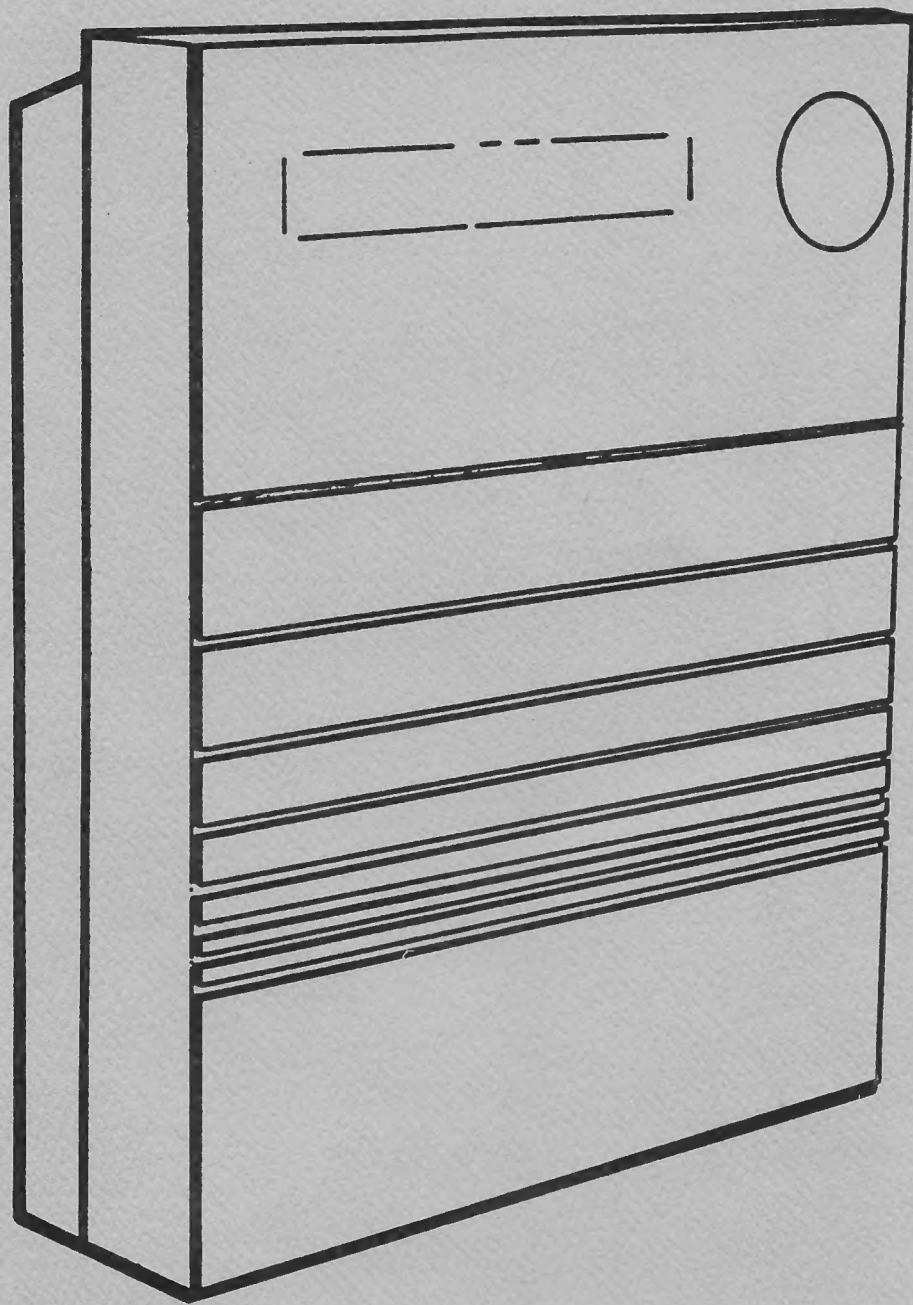


Butler in a Box



MASTERVOICE
OWNER'S GUIDE

MASTERVOICE INC.

WARNING: Tampering Voids Warranty

PRODUCT

P.I.N. # S93K

MODEL NO.

SERIAL NO.

D-07148-AA07303

STOP!!

PLEASE READ THIS IMPORTANT MESSAGE

Your MASTERVOICE system and components have been thoroughly tested and inspected to provide satisfactory performance. Nevertheless, we must alert you to the fact that **CARELESS REMOTE CONTROL** of appliances and lights could cause circumstantial mishaps which in no way reflect upon MASTERVOICE products.

The following are examples of mishaps that could occur:

- * If an automatic coffee maker contains no water when it is turned on remotely, it could overheat and be damaged.
- * An electric heater with clothing draped over it when it is remotely turned on could cause a fire.
- * An electric fan with poorly protected blades could injure someone too close by at the time the fan is remotely engaged.

Therefore, we cannot emphasize too strongly the importance of properly setting up ALL remotely controlled devices or appliances to avoid a potential problem situation.

Your MASTERVOICE system will provide you with great convenience, comfort and pleasure, but we urge you to take sensible safety precautions as you enjoy its many unique functions.

KEEP OUT OF REACH OF CHILDREN

For U.S.A.

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

MASTERVOICE LIMITED WARRANTY FOR BUTLER-IN-A-BOX

Terms of Limited Warranty

If you carry your MASTERVOICE product out with you after purchase from MASTERVOICE or an authorized MASTERVOICE reseller, MASTERVOICE warrants the product to be in good working order for a period of ninety (90) days from the date of purchase. If your MASTERVOICE product is shipped to you by MASTERVOICE or by an authorized MASTERVOICE reseller, MASTERVOICE warrants the product to be in good working order for a period of ninety-six (96) days, beginning one (1) day after the shipment date of the product.

What MASTERVOICE WILL Do

During the applicable warranty period MASTERVOICE, during its normal business hours, will maintain the product in good working order in accordance with its policies pertaining to maintenance equipment. This limited warranty extends only to the original purchaser of the product. If the product fails to be in good working order at any time during the applicable limited warranty period, MASTERVOICE will, at its option, either repair or replace the product at no additional charge except as set forth below. Repair parts and replacement products will be furnished on an exchange basis and will be either new or reconditioned. All replaced parts shall become the property of MASTERVOICE.

What MASTERVOICE Will NOT Do

This limited warranty does not extend to damage to the product resulting from misuse, abuse, accident, disaster or non-MASTERVOICE modification.

Except as set forth in the Warranty Agreement, MASTERVOICE makes no express warranties as to any matter whatsoever, including, without limitation, the condition of the equipment, its merchantability, or its fitness for any particular purpose. MASTERVOICE does not represent or warrant that the Intrusion Detection System may not be compromised or circumvented; or that the system will prevent any loss by burglary, hold-up, fire or otherwise; or that the system will in all cases provide the protection for which it is installed. This warranty does not cover any damage to material or equipment caused by accident, misuse, attempted unauthorized repair service, improper installation or modification by anyone other than MASTERVOICE. MASTERVOICE shall not be liable for consequential damages.

BUYER ACKNOWLEDGES: That any affirmation or fact or promise made by MASTERVOICE shall not be deemed to create an express warranty; that Buyer is not relying on MASTERVOICE's skill or judgment in selecting or furnishing a system suitable for any particular purpose; and that there are no warranties which extend beyond those stated in the Warranty Agreement hereof. Buyer acknowledges that Buyer has read and understands all of this Agreement.

MASTERVOICE Is Not An Insurer: LIQUIDATED DAMAGES

It is understood and agreed: That MASTERVOICE is not an insurer; that insurance, if any, shall be obtained by Buyer; that payments provided herein are based solely upon the value of the System and are unrelated to the value of Buyer's property or the property of others located on Buyer's premises. Buyer acknowledges that it is impractical and extremely difficult to fix the actual damages, if any, which may proximately result from a failure to perform any of the obligations herein, or the failure of the System to properly operate with resulting loss to Buyer because of, but not limited to:

- * The uncertain amount or value of Buyer's property or the property of others kept on the premises which may be lost, stolen, destroyed, damaged, or otherwise affected by occurrences which the System is designed to detect or avert.
- * The uncertainty of the response time of any police or fire department, should the police or fire department be dispatched as a result of a signal being received or an audible device sounding.
- * The inability to ascertain what portion, if any, of any loss would be proximately caused by MASTERVOICE's failure to perform or its equipment to operate.

Limitation of Remedy

If your product is not in good working order as warranted during the ninety (90) day limited warranty period or the ninety-six (96) day warranty period, whichever applies, your sole remedy shall be repair or replacement as provided above. In no event will MASTERVOICE be liable for any incidental or consequential damages arising out of the use of, or inability to use such product, or for any claim by any other party, even if MASTERVOICE has been advised of the possibility of such damage or claim. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

All expressed and implied warranties of this product, including the warranties of merchantability and fitness for a particular purpose, are limited in duration to a period of ninety (90) days from the date of purchase, or ninety-six (96) days from the date of shipment, as described above. No warranties, either expressed or implied, will apply after the applicable limited warranty period. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

How to Obtain Limited Warranty Service

Limited warranty service may be obtained during the applicable limited warranty period by delivering or sending your product to an authorized service center. If you want to send your product for repair, you must first obtain a return authorization number from an authorized service center. No product will be accepted for repair without a return authorization number. When you send your product to a service center by mail or carrier, you must prepay the shipping charges. You also must either insure the product or assume the risk of loss or damage in transit. Additional warranty service options may be available in your area.

To obtain your return authorization number or request any additional information about your product or this limited warranty, please call the MASTERVOICE SERVICE CENTER at (213) 594-6581.

***** ABOUT THIS OWNER'S GUIDE *****

Sections 1 through 11 of Owner's Guide provide operator information needed to properly unpack, set up, install and operate your BUTLER-IN-A-BOX.

The complex operating, advanced instructions and interfacing features given in Sections 12 and 13 are intended for people who have mastered the basic system operations and also for hardware and software host system design personnel. These technical sections inform interface design personnel how to properly integrate your BUTLER with an optional host system.

Sections 14 and 15 cover care of your BUTLER, operator troubleshooting, cleaning and additional accessories.

***** PREFACE *****

Owner's Guide represents the product as manufactured at the time of publication. MASTERVOICE reserves the right to make changes and/or improvements to its products without incurring any obligation to incorporate such changes or improvements in units previously sold or shipped.

***** AGENCY APPROVALS *****

UL LISTED UNDER FILE NO.E104022; CSA LISTED UNDER FILE NO. LR 61924 FCC CLASS PART 15 B AND FCC PART 68 LIMITS; DOC REGULATIONS CS-03.
The BUTLER-IN-A-BOX is being investigated as a residential burglar alarm by Underwriters Laboratories, Inc.

EDITION 4.00

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SECTION 1
INTRODUCTION

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- 1.2 What BUTLER-IN-A-BOX Does1-2

1.1 THIS IS BUTLER-IN-A-BOX

Congratulations. You have just purchased **BUTLER-IN-A-BOX** from MASTERVOICE, the most technically advanced system of its kind. **BUTLER-IN-A-BOX** is the world's first ARTIFICIAL INTELLIGENT ENVIRONMENTAL CONTROL SYSTEM for the home. We know you are eager to use your new BUTLER immediately, but **please** take the time necessary to read this Owner's Guide before you try to operate your unit. This Guide contains everything you need to know to operate the unit properly, and the sequence of sections is designed to instruct you in the most logical order for you to most easily and rapidly learn how to put your new BUTLER to work. **BUTLER-IN-A-BOX** is unlike any computer, appliance or other electronic device you have ever owned before; therefore, again, we strongly recommend that you READ THIS OWNER'S GUIDE before you start experimenting with your new BUTLER.

1.2 WHAT BUTLER-IN-A-BOX DOES

BUTLER-IN-A-BOX from MASTERVOICE gives you complete control of up to 256 devices in your home by 4 basic modes of operation.

Control by Voice (Voice Control) - This is the most glamorous and amazing method of operation, whereby BUTLER actually will recognize your spoken words, respond to you in a "Human Perfect" voice and carry out your verbal requests.

Control by Touch (Manual Control) - By using the command keys on the hidden keyboard you can turn on and off lamps, appliances and other electric or electronic devices. You also can place or receive phone calls.

Control by Time (Set Timers) - Your **BUTLER-IN-A-BOX** comes complete with a built-in SMART CLOCK that contains 32 timer locations. By SMART CLOCK we mean that each timer location can be individually programmed with its own start and stop dates. You can set the timer to come on once only or daily at times you choose. You can choose which days of the week it is to function. If it is operating a lamp or light fixture, BUTLER not only will turn it on, but also will dim it to your desired intensity.

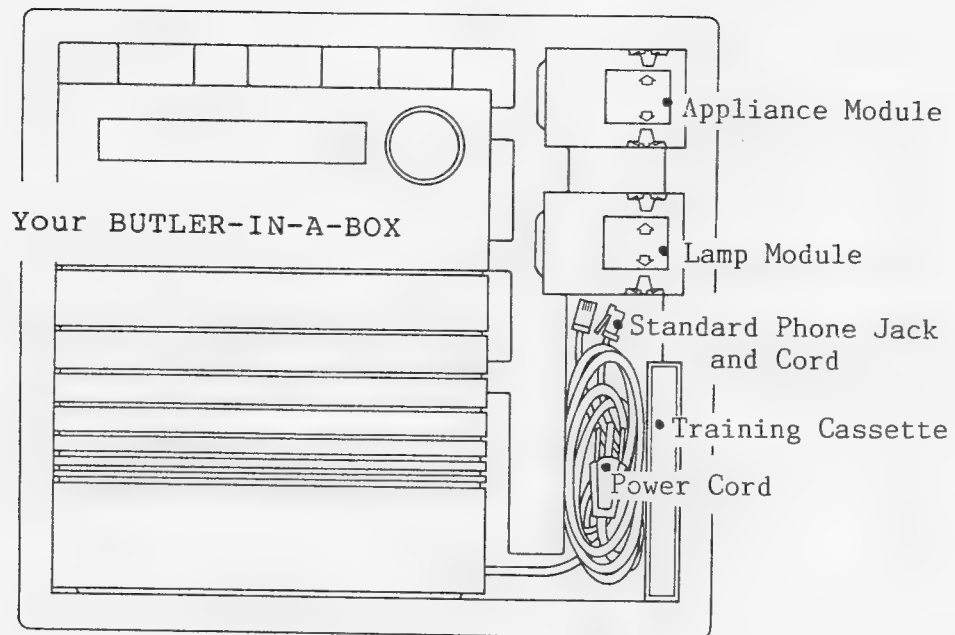
Control by Situation (Set Alarm) - Your **BUTLER-IN-A-BOX** can also send or receive commands through other methods of operation, including the built-in infrared sensor. In the Alarm Mode, BUTLER can detect an intruder and then activate your lights, ring bells or perform other functions you may select.

SECTION 2

UNPACKING

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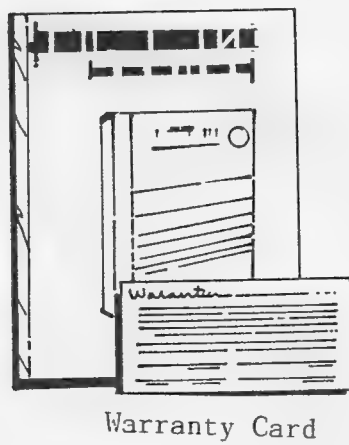


Figure 2-1

2.1 UNPACKING THE UNIT AND ACCESSORIES

Open the shipping carton carefully to prevent damage to the packing materials or the contents.

Inspect the shipping carton and the packing materials for any possible damage incurred during shipping. Immediately notify your dealer or shipping agent if you notice any damage.

Remove accessories from around the unit. The accessories include phone cord, one lamp module, one appliance module, warranty card and training cassette.

Carefully lift BUTLER-IN-A-BOX out of its foam packing.

Remove protective plastic wrapping.

Inspect BUTLER-IN-A-BOX and all accessories for any possible damage during shipping. Immediately notify your dealer or shipping agent if you notice signs of damage.

Place your new BUTLER on a sturdy table or shelf away from direct sunlight, water, high humidity areas or heat-emitting appliances. (Refer to Section 4.1 for complete instructions about proper operating location.)

CAUTION: Do not operate your BUTLER in temperatures over 104 degrees F (40 degrees C) or below 50 degrees F (10 degrees C).

2.2 SAVING THE SHIPPING MATERIALS

After unpacking your BUTLER, be sure to save **ALL** of the **ORIGINAL SHIPPING MATERIALS**. If you have to return your unit for repair or replacement, it **MUST** be returned in the original shipping materials or warranty will not be honored.

SECTION 3
FAMILIARIZATION

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* * * * * FAMILIARIZATION

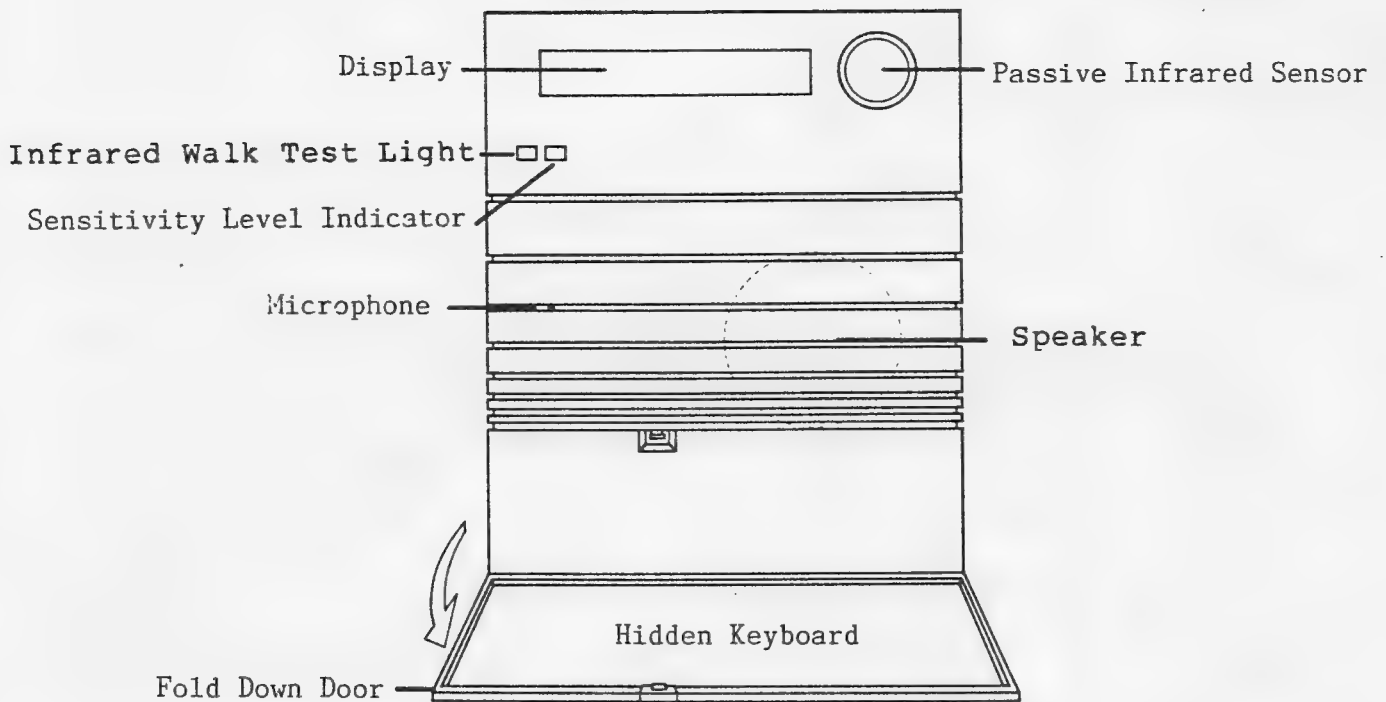
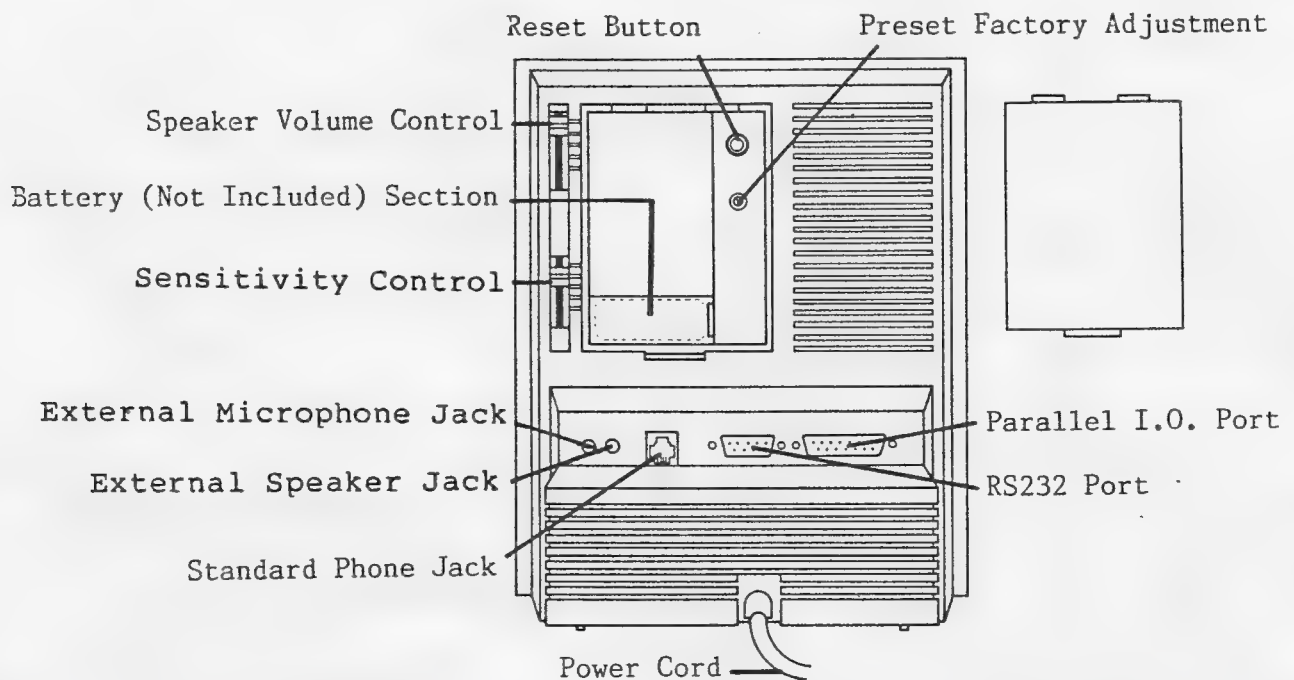


FIGURE 3-1

FIGURE 3-2



3.1 FEATURES OF BUTLER-IN-A-BOX (FRONT)

This section identifies the various features on the front of your BUTLER (see Figure 3-1).

1. **DISPLAY PANEL** - This panel, or "window," will give you information during the set up and the operation of your unit. It is a 16-character, alpha-numeric display and is designed to be on 24 hours a day.

NOTE: When you are in the Voice Control mode of your system, this display will pulse or blink slightly. This pulsing or blinking is by design and is to be expected as part of the normal operation of your unit. This will be further explained in Section 11.1 of this Owner's Guide.

2. **PASSIVE INFRARED SENSOR** - This sensor -- the BUTLER's "eyes" for detecting intruders -- has a maximum horizontal detection range of about 10 feet at a distance of 40 feet. When the alarm is in the activation mode and an intruder enters the detection zone, the BUTLER can turn on lights or any other device of your choice in an attempt to scare off the intruders (see Section 12.2 for complete information on setting up the intrusion detection system).
3. **SENSITIVITY LIGHT (RED)** - This red light monitors the noise level in the room. It also monitors your voice level and indicates if the BUTLER is "hearing" you properly (see Section 6.4).
4. **PASSIVE INFRARED WALK TEST LIGHT (GREEN)** - This green light monitors movement in the room. It also is used as a "walk" test light and indicates if the infrared sensor is working properly (see Section 12.2).
5. **BUILT-IN MICROPHONE** - This is the BUTLER's "ears," the feature that enables him to "hear" your voice (see Section 6.4).
6. **BUILT-IN SPEAKER** - This is the BUTLER's "mouth," the feature that enables him to "speak" to you. It also is the speaker for the built-in telephone (see Section 6.3).
7. **DROP-DOWN DOOR** - This door drops down to expose the keyboard and lifts up out of the way when not in use.
8. **KEYBOARD** - This is the main control section for the BUTLER. All the set up information is entered into your unit through the keyboard (see Section 6.2).

3.2 FEATURES OF BUTLER-IN-A-BOX (BACK)

This section identifies the various features on the back of your BUTLER (see Figure 3-2).

1. **VOLUME CONTROL** - This slide control on the top left back corner of the box enables you to adjust the volume of the BUTLER's "voice" coming through the speaker (see Section 6.3).
2. **SENSITIVITY CONTROL** - This slide control in the middle of the left side of the box enables you to adjust the BUTLER's capability to "listen" when you speak to him through his microphone (see Section 6.4).
3. **BATTERY COMPARTMENT DOOR** - Covers the battery compartment.
4. **BATTERY COMPARTMENT** - This is the area where the battery backup is stored, a data information sheet can be stored, and the master reset button is located.
 - (a) Battery Area (see Section 5.3)
 - (b) Factory Setting Hole
 - (c) Master Reset Button (see Section 14.3)
5. **EXTERNAL MICROPHONE JACK** - This jack gives you the ability to use an external microphone (see Section 13.1).
6. **EXTERNAL SPEAKER JACK** - This jack gives you the ability to attach external speaker systems (see Section 13.2).
7. **TELEPHONE CONNECTOR** - With this feature you may connect the BUTLER to any standard telephone line (see Section 5.1).
8. **RS-232 PORT** - This port is used for interfacing to computer systems (see Section 13.3).
9. **AUXILIARY I.O. PORT** - This is the future enhancement port for all the functions you think the BUTLER should perform but does not (see Section 13.4).
10. **POWER CORD** - This is the BUTLER's "lifeline" (see Section 5.3).

3.3 ACCESSORIES

This section describes and identifies the location of the accessories delivered with your BUTLER (see Figure 3-3).

1. **TRAINING CASSETTE** - Assists you in teaching and training your BUTLER to understand your voice commands.

*** * * * * FAMILIARIZATION**

2. **PHONE CORD** - The interface between BUTLER and any standard home telephone jack (see Section 5.1).
3. **LAMP MODULE** - This module gives you the ability to control lights in your home (see Section 8.2).
4. **APPLIANCE MODULE** - This module gives you the ability to control an appliance in your home (see Section 8.3).
5. **WARRANTY CARD** - To insure proper warranty coverage, please fill out and return this warranty card **now** (see Page ii).

Owner's Guide

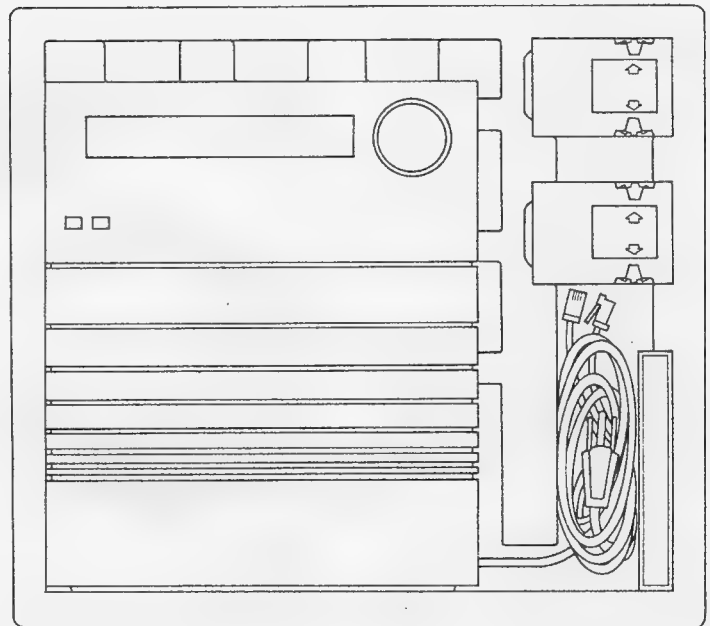
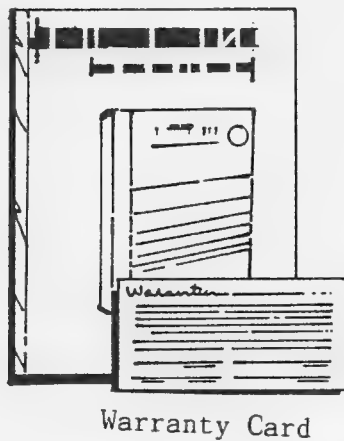


FIGURE 3-3

SECTION 4
PLACEMENT AND SAFETY

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4.1 PLACEMENT OF UNIT

1. Place your BUTLER on a stable, vibration-free, level shelf, stand, table or other similar surface.
2. Do **NOT** place BUTLER in locations where there is water or humidity, such as near a bathtub, wash basin, swimming pool, or the like. Damp basements also should be avoided.
3. Do **NOT** place BUTLER in locations exposed to direct rays of the sun. Direct sunlight through a window could warp the plastic case and damage your unit.
4. Do **NOT** place BUTLER in locations where ventilation is obstructed, such as in a bookcase or between cabinets, or anywhere curtains or furniture may restrict ventilation.
5. Do **NOT** place BUTLER near heat-emitting devices, such as a radiator, heat register, stove, fireplace, amplifiers, or any other heat-emitting equipment.

4.2 SAFETY PRECAUTIONS

The following are safety precautions you **MUST** observe:

1. Do **NOT** connect ANY electric or electronic device **EXCEPT** LAMPS to lamp modules. Appliances, television sets, stereos and the like can be damaged if plugged into lamp modules.
2. Do **NOT** connect fluorescent lights to lamp modules. Fluorescent lights can be used with appliance modules **ONLY** and cannot be dimmed.
3. Do **NOT** exceed module ratings printed on the back of lamp and appliance modules, and on the front plate of wall switch modules. Check Volt (V), Watt (W) or Amp (A) ratings of lights and appliances before using with modules.
4. Lamp modules and appliance modules have polarized prongs (one tip is larger than the other) and must be used with polarized wall outlets **ONLY**.
5. Remove appliance cord from appliance module before servicing the appliance.
6. Turn off circuit breaker or fuse box before replacing old wall switch or wall receptacles with the new wall modules.
7. Do **NOT** use wall switch modules to control wall outlets or fluorescent fixtures.

* * * * * **PLACEMENT AND SAFETY**

8. Put the wall switch module slide switch to OFF position when changing light bulbs.
9. Do **NOT** allow water or any foreign object to get inside the unit.
10. Do **NOT** place small metal objects or anything containing liquid on or near the unit.
11. Check the voltage rating of BUTLER before connecting it to a power supply. Be sure to connect the unit **only** to the type of power supply indicated in the operating instructions (see Section 13.7), or as indicated on the unit itself.
12. Take care that the power cord is never bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed. **NEVER** take hold of the plug or cord if your hand is wet, and always grasp the plug body when connecting or disconnecting it.
13. If the unit will not be used for a long period of time, disconnect the power cord.
14. **NEVER ATTEMPT REPAIRS YOURSELF**, including, but not limited to the following situations:
 - (a) If the power cord or plug is damaged.
 - (b) If a foreign object or liquid falls into the unit.
 - (c) If the unit is exposed to rain.
 - (d) If the unit does not function normally, or if operation shows an unusual change.
 - (e) If the unit has been dropped and the cabinet, or chassis, is damaged.

If any of these or other similar conditions occur, unplug the power cord and consult with a qualified technician, the dealer from whom the unit was purchased or the nearest authorized service center.

DO NOT ATTEMPT ANY REPAIRS YOURSELF
--

SECTION 5
SETTING UP UNIT

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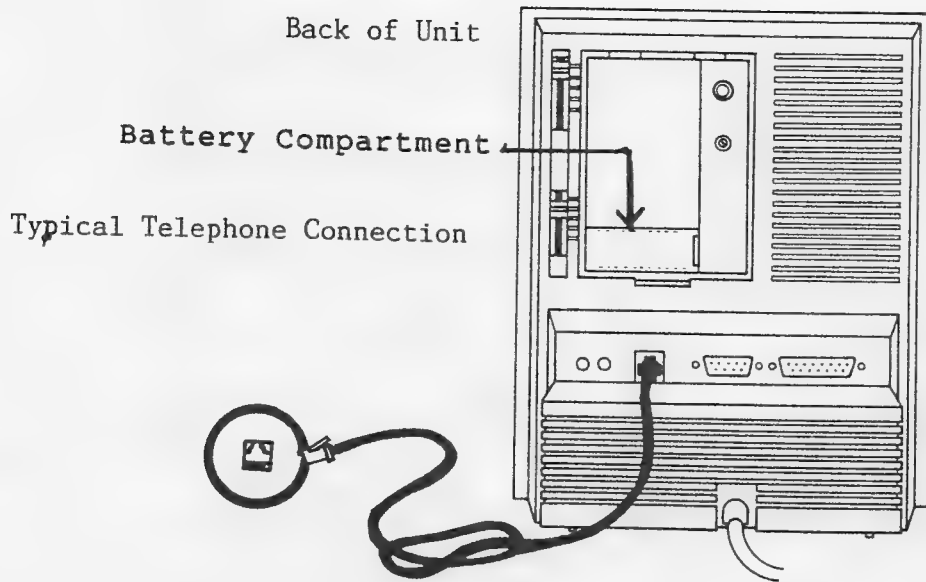
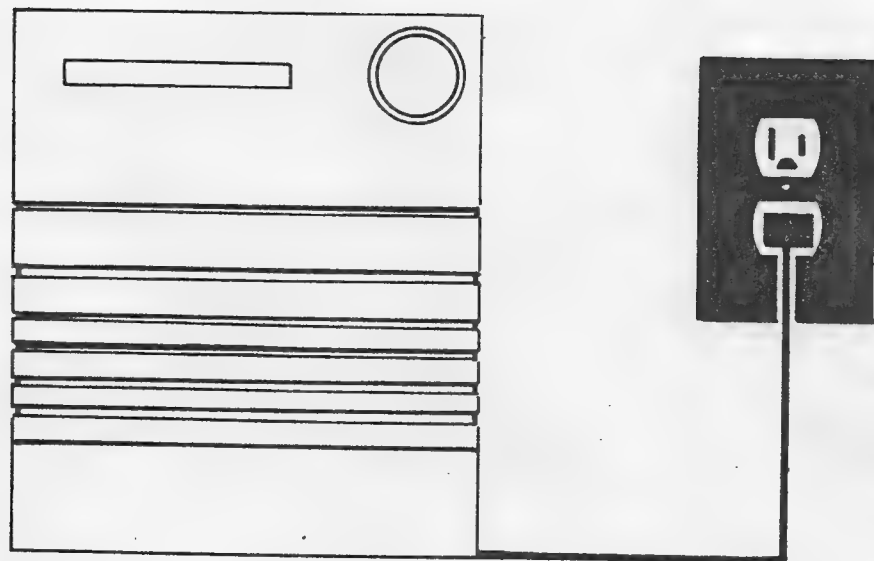


Figure 5-1

Figure 5-2



5.1 PHONE CONNECTION

Included in your start-up kit is a telephone line cord (Figure 3-1). Remove the cord and plug it into the phone jack (Figure 5-1) on the back of your BUTLER. Plug the opposite end of the cord into any standard home telephone wall receptacle. **BUTLER-IN-A-BOX** is a complete self-contained telephone, speakerphone and dialing system. The phone connections you have just made are the ONLY ONES NECESSARY to use the features described. Your BUTLER has been registered with the Federal Communications Commission (FCC) and complies with Part 68 of the FCC rules. It is not approved for use with party lines or in place of coin activated telephones. A detailed description of the telephone features will be given later in this guide.

IMPORTANT NOTIFICATION PROCEDURES

The FCC requires that you notify the telephone company which provides service to the line being connected and inform them of the following:

1. The telephone number of the line to which you are connecting your unit.
2. The 14-digit FCC Registration Number and Ringer Equivalence Number (REN), both located on the bottom of your unit.

In the event your unit appears to malfunction, it should be disconnected from the telephone line until it can be determined if the unit is the source of the trouble. If it needs repair, do not reconnect it until such repairs are made.

Except for the telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and telephone company provided jacks, or equivalent, in such a manner as to allow for easy, immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that, if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customer's premises which remains connected to the telephone network shall occur by reason of such withdrawal.

INCIDENCE OF HARM OR CHANGE TO NETWORK

Under normal use, your unit should not cause harm to the telephone line. If such harm does occur, however, the telephone company will, where practicable, notify you, the customer, that temporary discontinuance of service may be required; however, where prior notice is not practicable, the telephone company may temporarily discontinue service forthwith, if such action is reasonable in the circumstances. In case of such temporary discontinuance, the telephone company is required to promptly notify you, the customer, of your right to bring

* * * * * SETTING UP UNIT

a complaint to the FCC pursuant to the procedures set forth. Procedures for filing such complaints can be obtained from your dealer.

The telephone company may make changes in its communications facilities, equipment, operations or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the Rules and Regulations of the FCC. If such changes can be reasonably expected to render your unit incompatible with telephone company communications facilities, or require modification or alteration of your unit, or otherwise materially affect its use or performance, the telephone company is required to give you, the customer, adequate notice in writing to give you an opportunity to maintain uninterrupted service.

The REN is useful for determining the quantity of devices you may connect to your telephone line and still have all devices ring when your telephone number is called. In most areas, but not all, the total number of devices connected to one line should not exceed 5. To be certain of the number you may connect to your line, contact your local telephone company.

5.2 APPLYING POWER

BUTLER-IN-A-BOX has a power cord connected to it. Plug the cord into any standard 110 AC outlet. Upon being plugged into the outlet (Figure 5-2), the unit will automatically switch from battery to AC operation if the battery has already been installed (Section 5.3). Once power has been applied to your unit, the display panel will show **BY MASTERVOICE** for approximately 16 seconds and then you will hear your BUTLER speak to you for the first time; he will say "Hello." Then **TEST PASSED OK** will appear. Next, you will see **ENTER P.I.N.** on the display. Information about your P.I.N. (Product Identification Number) and the procedure for entering it are covered in detail in Section 7.1. Do NOT jump to that section. Please continue reading this section and all other sections in this Owner's Guide in order. As stated at the beginning of the Guide, the sequence of sections is carefully designed to best inform you about your new BUTLER and instruct you in most easily and rapidly learning to operate him.

The sequence of above events will happen only the first time you plug in your unit or until you've installed the battery backup. Once the battery backup is installed, in the event of a power failure, when power returns your unit will always go back to the top of the menu (see Glossary), which will display **OPERATIONS**. If you are in Voice Control operation at the time of a power failure, the unit will go back to displaying the current time of day when power returns (see Section 5.3).

IMPORTANT - ELECTRICAL GROUNDING INSTRUCTIONS

Your unit's power cord has a grounding plug with a grounding wire. The plug **MUST** be used in an outlet that is properly installed and grounded. Improper use of the cord can result in a risk of electric shock. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current.

WARNING: Improper use of the grounding plug can result in a risk of electric shock.

CONSULT A QUALIFIED ELECTRICIAN OR SERVICEMAN IF YOU DO NOT COMPLETELY UNDERSTAND THE GROUNDING INSTRUCTIONS OR IF YOU ARE NOT CERTAIN WHETHER THE UNIT IS PROPERLY GROUNDED.

A short power cord is provided to reduce the risk of anyone becoming entangled in or tripping over it. Longer cord sets or extension cords are available and may be used if care is exercised.

The marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the unit.

The extension cord must be a grounding-type 3-wire cord.

The longer cord should be arranged so that it will not drape over a countertop or tabletop where it can be pulled on by children or tripped over accidentally.

The electrical power cord must be kept dry and must not be pinched or crushed in any way.

5.3 INSTALLING BATTERY BACKUP

BUTLER-IN-A-BOX has an optional battery backup capability which will prevent loss of memory in the event of a power failure. To install the battery backup, please follow these steps:

1. Open the battery compartment cover as shown in Figure 5-1. Note in the bottom of the battery backup cover a small area designed to hold five standard AA 1½ volt batteries.

Alkaline or equivalent batteries must be used.

2. Insert the battery into the battery compartment according to the diagram, making sure proper polarity is maintained.
3. Replace the compartment cover.

* * * * * SETTING UP UNIT

BATTERY LIFE - The batteries will last and maintain the memory for approximately three hours after a power failure. If extended battery time is desired, a large 6 volt battery may be installed in back of the unit by disconnecting the battery clip cable (currently attached to battery case.) and attaching it to the 6 volt battery. After a power failure, batteries always should be replaced. Your system will let you know when a power failure has occurred during your absence from home. If the outage period is less than the battery life, a "?" will be displayed on the right side of the time display, which would be the current time. For example, 11:23? on the display panel means there has been a power outage and the current time is 11:23. To remove the "?" from the display, you will have to reset your system's clock (see Section 9.2, Setting Up Clock). If the outage period exceeds the life of the battery, the display will show **ENTER P.I.N.;** follow the procedure for entering your P.I.N. (see Section 7.1).

NOTE: If your BUTLER is unplugged or a power failure occurs, it will automatically switch to battery operation. In battery operation its ONLY function is to hold the memory. It WILL NOT OPERATE any appliances or lamps in the house, telephone system or built-in alarm circuit UNTIL THE POWER HAS BEEN RESTORED TO THE AC OUTLET.

SECTION 6
CONTROL PANEL OPERATIONS

Contents

6.1	Display Panel	6-3
6.2	Keyboard	6-3
6.3	Volume Control	6-6
6.4	Sensitivity Control	6-6

* * * * * CONTROL PANEL OPERATIONS

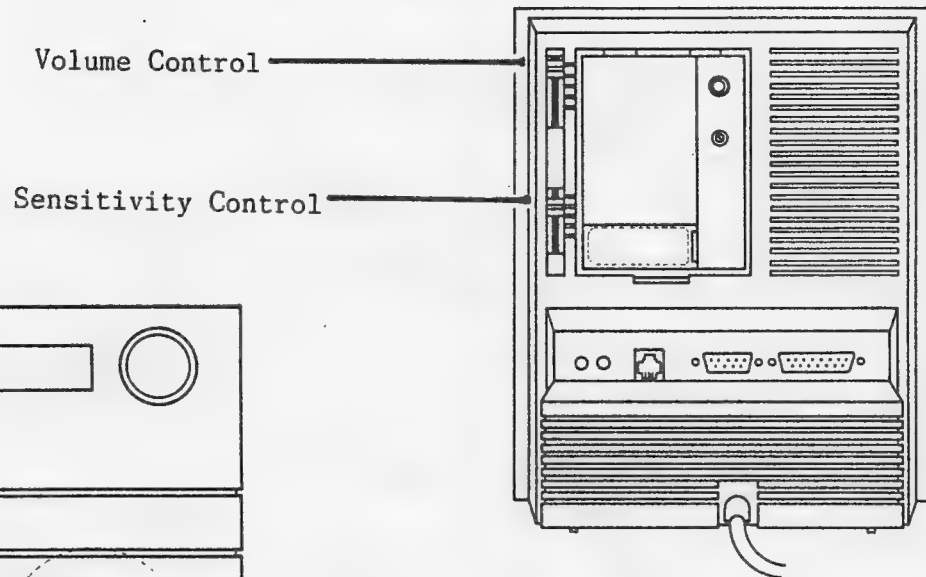


Figure 6-1

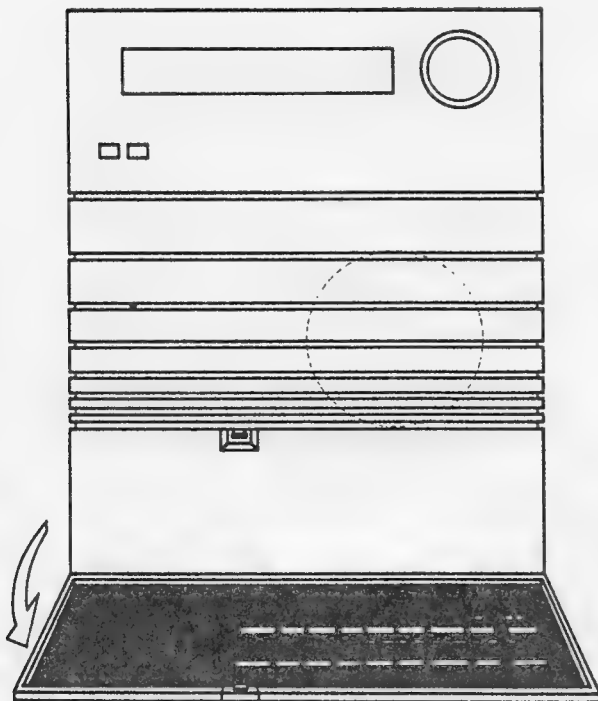
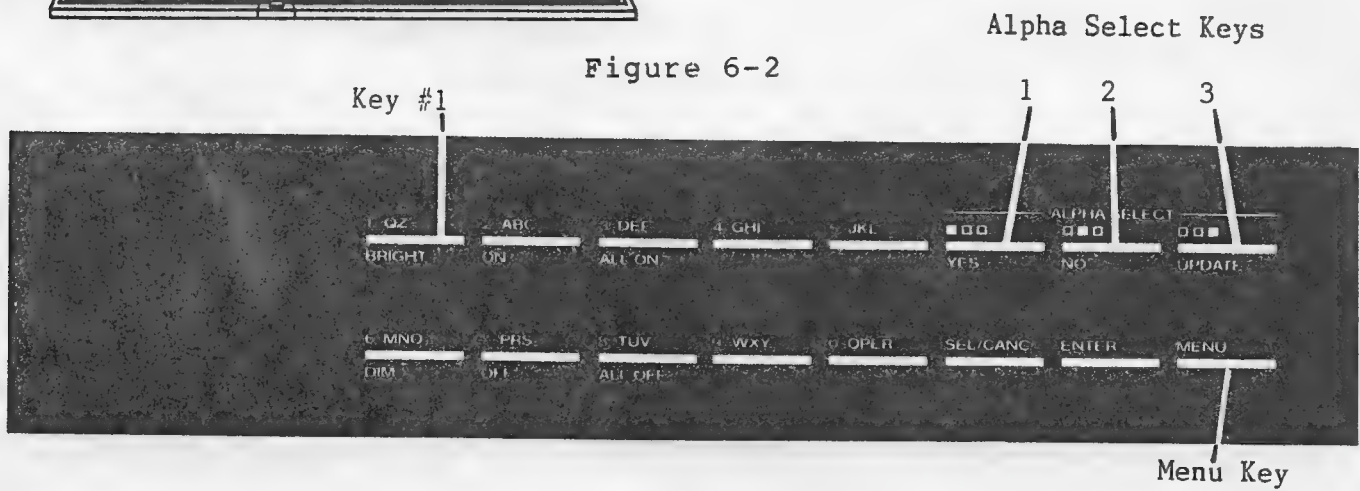


Figure 6-2



* * * * * CONTROL PANEL OPERATIONS

So that you can proceed to set up and train your new BUTLER-IN-A-BOX, we will familiarize you with control panel features and their functions.

6.1 DISPLAY PANEL

The display panel is a 16-character, alpha-numeric vacuum fluorescent display at the top front of your BUTLER (see Figure 3-1). As mentioned in Section 3.1.1, the display panel acts as a window to give you set up and operating information, and it is designed to be on continuously.

If you wish, you may dim or brighten the factory-set illumination intensity level of the displayed information (see Section 9.3).

Throughout this Owner's Guide we will be referring to information that will be displayed on the display panel. In the Owner's Guide ONLY, this information will appear between asterisks: * *. When the same information is displayed on your panel, NO asterisks will appear.

EXAMPLE: In Owner's Guide: When *OPERATIONS* is said to be displayed on the display panel, asterisks will appear on both sides of the word. On display panel: OPERATIONS will appear with NO asterisks on the display.

NOTE: In the Voice Control mode, your display panel will **blink or pulse slightly**. THIS IS A NORMAL PART OF THE VOICE RECOGNITION OPERATION; NOTHING IS WRONG WITH YOUR SYSTEM. Each time the display blinks or pulses, it has removed all sound or recognition it has heard as of that moment.

6.2 KEYBOARD

The keyboard is located on the front hidden panel of your unit (see Figure 6-2). It consists of 16 pressure-sensitive keys (2 rows of 8), which will be used for training, or programming, and operating your BUTLER. As you can see from the various names, or designations, on each key, each has more than one function. The following is a brief description of each key and its possible uses. A more detailed explanation will be given in later sections of this Owner's Guide as it becomes necessary to use the various keys in the training and operating instructions.

When this Owner's Guide refers to any key **you will be instructed to USE** in setting up and operating your BUTLER, that key will appear between < > symbols. When any other reference is made to a key, the key will NOT appear between < > symbols.

* * * * * CONTROL PANEL OPERATIONS

EXAMPLE: Instruction in Owner's Guide: To enter the number "1" into the system, press the <1> key; then press the <ENTER> key. Other reference in Owner's Guide: The ENTER key is used every time you want to enter information in your system or enter a new menu area.

NOTE: ANY TIME YOU ARE INSTRUCTED TO PRESS ANY KEY, PRESS THE KEY ONE TIME ONLY UNLESS YOU ARE SPECIFICALLY INSTRUCTED OTHERWISE. On occasion you'll be instructed to press a key "until" a specific menu selection appears on the display panel, or to press a key "twice."

In the various modes of operation, one function of the keys is entering information requiring numbers. The first 5 keys in the top row are numbered 1 through 5; the first 5 keys in the bottom row are numbered 6 through 0. Every time you need to enter number information, for instance a telephone number, you would press the appropriate number keys.

EXAMPLE: To enter the telephone number, 1-123-456-7890, you would use the 1 key twice and all other number keys once each.

Several of these keys also have other functions, as follows; see Section 11.2, Manual Control, for detailed information:

- * Key 1 is the BRIGHT key to brighten lights.
- * Key 2 turns ON a light or appliance.
- * Key 3 turns lights ALL ON.
- * Key 6 will DIM lights.
- * Key 7 turns OFF a light or appliance.
- * Key 8 turns lights and appliances ALL OFF simultaneously.

To enter information requiring letters of the alphabet, you would use the Alpha Select mode of operation. The number keys have still other functions when they are used in the Alpha Select mode of operation (see Section 12.3, Setting Up Alpha Displays, for detailed information).

The last three keys, top row at right, are Alpha "1", Alpha "2" and Alpha "3" (see Figure 6-2). These three keys have two functions each. First, in the Alpha Select mode of operation, these keys will permit you to choose which letter on the number keys 1 through 0 will be entered into your unit. The three small squares above the thick line correspond to the sequence of alphabet letters above the thick line on the number keys.

* * * * * CONTROL PANEL OPERATIONS

EXAMPLE: Alpha Select Key 1, with the solid square in the first of three possible positions, allows you to select the letter A, the first letter selection on Key 2. Alpha Select Key 3, with the solid square in the third of three possible positions, allows you to select the letter C, the third letter selection on Key 2, and so on. This procedure may be used to spell out names of devices your BUTLER will control (see Section 12.4).

The second use of these three keys is: Alpha 1 -- YES; Alpha 2 -- NO; and Alpha 3 -- UPDATE. These functions, which are used in teaching your BUTLER to understand your verbal commands, will be discussed in detail in Section 10.8.

Below the three Alpha keys are the SEL/CANC key (Select/Cancel), the ENTER key and the MENU key.

The SEL/CANC key has two basic functions:

- * In the Select mode (the SEL feature of the key), pressing the SEL/CANC key enables you to scroll through items on the menu so you may select the one you want when it appears on the display.
- * The Cancel mode (the CANC feature of the key) allows you to cancel or change an incorrect entry.

EXAMPLE: If you entered a "5" and meant to enter a "6", you would press the <SEL/CANC> key, which would cancel the "5". Then you would enter the correct information, in this case, "6".

The ENTER key permits you to enter any section of the main menu or any section of the various other menus in the system as you scroll through the menu items. This key also permits you to enter, or record, specific information you wish to have accepted, or recorded, into any section of your system's menus.

EXAMPLE: You want to set the display level of your BUTLER. By pressing the <SEL/CANC> key, you would scroll through the System Set Up menu until *DISPLAY LEVEL* appears on the display panel. Then you would press the <ENTER> key to enter the Display Level part of that menu. You also would use the <ENTER> key to enter the information you wish to have accepted, or recorded, in that part of the menu.

Pressing the MENU key once allows you to return to the beginning of each individual menu section. If the MENU key is pressed three times in succession, you will return to the top of the system's main menu, which is OPERATIONS, regardless of where you are in the system.

NO MATTER WHAT IS HAPPENING IN THE SYSTEM, PRESSING THE MENU KEY THREE TIMES IN SUCCESSION STOPS ALL FUNCTIONS AND THE SYSTEM WILL RETURN TO OPERATIONS, AT THE TOP OF THE MAIN MENU.

* * * * * CONTROL PANEL OPERATIONS

6.3 VOLUME CONTROL

The volume control setting is on the back, top left corner of your BUTLER (see Figure 6-1). It controls the volume of the person's voice coming through the speakerphone as well as how loud your BUTLER will reply to you. We suggest that you place the volume control at the middle of the volume range and adjust it later if you desire.

6.4 SENSITIVITY CONTROL

The sensitivity control is located just beneath the volume control (see Figure 6-1). This control allows you to adjust the "hearing" level of your BUTLER. Once the sensitivity control has been properly set, you may operate BUTLER from across the room even when your TV, radio, stereo, or a combination of entertainment units are on at reasonable listening levels. Reasonable listening levels for this purpose would be having the volume controls set slightly higher than they ordinarily would be if people were conversing while the units were on. Follow these procedures to set the sensitivity control:

1. Move the sliding sensitivity control switch to the top, which is its maximum setting.
2. Turn on your TV, radio or stereo, or any combination of them, to reasonable listening levels.
3. Check the RED sensitivity light (see Figure 3-1) on the front of the unit. If it is on or flickering, it is detecting the other noise in the room. Slowly lower the sensitivity control switch until the light goes out completely. At that point, even though the TV, radio or stereo are turned on, your unit has been properly balanced to operate at your voice command in that room.

NOTE: If the sensitivity control switch is at its lowest possible setting and the light is still flickering, the entertainment units are too loud for BUTLER to operate. You may (a) lower the volume of the TV and radio; (b) move the unit to another location in the room and proceed with the steps above again; or (c) a combination of both of the above may be necessary to properly balance your system to the room in which you intend to use it. Ideally, the sensitivity control setting should be near the middle of its minimum and maximum ranges to give you the greatest flexibility in making adjustments to changing noise levels in the room. **THIS INITIAL BALANCING PROCEDURE IS ESSENTIAL FOR PROPER OPERATION OF YOUR BUTLER, AND IT MUST BE DONE PROPERLY BEFORE YOU PROCEED.** Without correct balance, your unit will not function properly in the Voice Control mode of operation. Therefore, please take the necessary time **NOW** to balance your BUTLER. If you move him to another room, you must follow these same set up procedures for that particular room.

SECTION 7
PREPARING FOR OPERATION

Contents

7.1	Entering P.I.N.	7-2
7.2	System Test	7-3
7.3	Set Up Form	7-4
7.4	Default Settings	7-4

* * * * * PREPARING FOR OPERATION

7.1 ENTERING P.I.N.

On the inside of the front cover of your Owner's Guide you will find the P.I.N., or your Product Identification Number. This is a 4-digit alpha-numeric code, which must be entered into your unit before you can start operating it. YOUR BUTLER CANNOT FUNCTION WITHOUT ENTRY OF THE P.I.N. Please keep this number in a safe place, NOT with the BUTLER. If you lose the number, your unit will have to be returned to the manufacturer with proof of purchase; a fee will be charged for supplying the unit with a new P.I.N. It is NOT possible to receive the number over the telephone or from your dealer. **THIS IS FOR YOUR PROTECTION.** If your unit is stolen and you have mailed in your registration warranty card, you can notify us so we may be on the look-out for your unit. Remember, BUTLER will NOT function without the P.I.N.

At this point you should have started the procedure for applying power to your system and are ready to enter your P.I.N. You will be using the Alpha Select keys in the upper right-hand corner of the keyboard and the number keys (see Figure 6-2).

Look at the Alpha Select keys, in the upper right section of the keypad. You will notice that above each key are 3 boxes, one of which in each case is colored in. Now look at a "number" key (the keys on the left portion of the keypad). Notice that, as with a telephone dial, there are 3 letters above each key (except the "0" - "operator" key).

To select a given letter, look first at the Alpha Select key to note which colored-in box corresponds to the desired letter. Pressing that Alpha Select key BEFORE pressing the key with the letter above it which you desire will result in that letter being selected. (An example follows.) In this manner, the entire alphabet, and all necessary number combinations are possible on a very compact keypad. With a little practice, you will find that it is very easy to use this system.

To chose a number for your P.I.N., you do not need to push an Alpha Select key prior to pressing the number key. The number pressed will be chosen automatically if no Alpha Select key is pressed beforehand.

Now, using the 4-digit code, which for our example ONLY will be 1J7Q, proceed with the following steps to enter YOUR P.I.N. Substitute, in correct sequence, the numbers or letters of YOUR P.I.N. for the numbers and letters of our example code:

* * * * * PREPARING FOR OPERATION

Please note: This P.I.N. (1J7Q) is only an example. Your P.I.N. will be found on the inside front cover of your Owner's Manual, as covered above.

1. With ***ENTER P.I.N.*** on the display, press the <1> key.
2. Press the first Alpha Select key (marked **YES**); then press the <J>, or the number 5, key.
3. Press the <7> key.
4. Press the third Alpha Select key (marked **UPDATE**); then press the <Q>, or the number 1, key.
5. As each of the alpha-numeric keys was pressed, an asterisk (*) should have appeared on the display panel in the space after ***ENTER P.I.N.***. When 4 asterisks are displayed, press the <ENTER> key.
6. If you have correctly entered your P.I.N., ***OPERATIONS*** will appear on the display. If not, you have made a mistake in one or more of the number/letter entries. Press the <SEL/CANC> key and repeat the procedure for entering your P.I.N.

7.2 SYSTEM TEST

BUTLER will allow you to test the circuitry and memory locations for proper operations. **WARNING:** This will lose or destroy all memory or trained information stored in your unit. This test should be done **ONLY** when you first get the system or if you've had a power failure and lost all memory in the system. Any other use will **DESTROY ALL MEMORY**. All recognition training, device set up, timers and trained voice responses within your unit will be lost. To perform the system test procedure, follow these steps:

1. Starting with ***OPERATIONS*** on the display, press the <SEL/CANC> key until ***SYSTEM SET UP*** appears; press the <ENTER> key.
2. Press the <SEL/CANC> key until ***SYSTEM TEST*** appears, then press the <ENTER> key.

* * * * * PREPARING FOR OPERATION

AGAIN NOTE: ENTERING THIS LOCATION WILL DESTROY ALL MEMORY RECOGNITION IN THE MEMORY SECTION AND WILL REQUIRE YOU TO RESET THE VOICE RECOGNITION SECTION BEFORE YOU MAY USE BUTLER AGAIN. THIS TEST SHOULD BE USED ONLY WHEN YOU FIRST SET UP YOUR UNIT OR AT ANY TIME AFTER YOU HAVE LOST ALL MEMORY WITHIN THE UNIT.

3. ***ERASE MEMORY*** will appear on the display. Press the third Alpha Select key (marked **UPDATE**); then press the <Y>, or the number 9, key. If you do **not** want the memory erased, simply press the <ENTER> key.
4. If you wish to proceed, press the <ENTER> key again. ***ARE YOU SURE?*** will appear. Again press the third Alpha Select key and then the <Y> key; now press the <ENTER> key. Your unit will begin a system test procedure. This is the same testing that happens when you first apply power to the system. See Section 5.2 for more information.

NOTE: If anything other than the *TEST PASSED OK* symbol appears, please contact your local service representative for repair.

DO NOT ATTEMPT TO OPEN THE BACK OF THIS UNIT. THERE ARE NO SERVICEABLE PARTS INSIDE, AND WARRANTY WILL BE VOIDED.

7.3 SET UP FORM

Use the Set Up Form, provided at the end of this Owner's Guide, to assist you in setting up and training certain features of your BUTLER.

The form covers the Lamp and Appliance Module Section (Section 8), the Setting Up Device Section (Section 9.4) and the Teaching the Butler Section (Section 10.7) of the Guide.

7.4 DEFAULT SETTINGS

Your BUTLER comes with many decisions already made for you. We call these **DEFAULT** settings. The following are the **DEFAULT** settings your unit contains when you purchase it. Unless you make changes in accordance with instructions in the various Owner's Guide sections specified, you will be using these **DEFAULT** settings in the operation of your unit.

* * * * * PREPARING FOR OPERATION

1. **DISPLAY LEVEL** - The display level, or brightness level of words appearing on the display panel, ranges from **VERY LOW** to **LOW**, **MEDIUM** and **HIGH**. The **DEFAULT** is set at **MEDIUM** (see Section 9.3, Setting Up Display Level).
2. **SETTING UP DEVICES** - BUTLER will give you operating control of 256 devices (lamps, appliances, entertainment units, etc.). The first group of 32 is reserved for the Voice Control mode of operation. These have been preset for MODULES with House Code settings from A-1 to B-16. The second group of 32 is reserved for Timer Control and has been preset for MODULES with House Code settings from C-1 to D-16; and the remainder are reserved for Manual (touch) Control operation. These three types of operating control will be fully explained as you proceed to set up your BUTLER.

The letters and numerals designate House Codes and Unit Codes. The first and second groups of devices, a total of 64, are set to these codes. This will simplify setting up lamp and appliance modules (see Section 8). Instructions for changing the House and Unit Codes are in Section 9.4, Setting Up Devices.

3. **DIM FACTOR** - Your lights may be dimmed to a predetermined intensity level from 1 through 4. The **DEFAULT** has been set at level 3. See Section 9.5 if you wish to change this factory-set level of dimness.
4. **TIMERS** - All timers have been set to the empty status. This may be changed in accordance with instructions in Section 12.1, Special Options.
5. **ALARM** - Upon the command "Alarm on," BUTLER's Intrusion Detection System will give you approximately 60 seconds to leave the room in which your unit is operating. Upon your returning to that room after the 60 seconds, BUTLER will ask you to identify yourself and will give you approximately 60 seconds to do so. If you don't identify yourself within that 60 seconds, your BUTLER will go into alarm mode. The **DEFAULT** is set to blink the light modules in the house on and off for approximately 5 minutes. All of these settings just described (the 60 seconds in/out, the 5 minutes blinking and the verbal response) and other **DEFAULT** settings for the Intrusion Detection System may be changed; see Section 12.2, Setting Up Alarm.

* * * * * PREPARING FOR OPERATION

6. **ALPHA DISPLAY** - The various modes in which your BUTLER can operate and the commands you give him will appear on the display panel. Alpha (alphabet) Display is a mode of operation that, among other things, permits you to change terminology in DEFAULT settings to terminology of your preference for the various devices BUTLER is controlling. DEFAULT terminology for the various devices is Device 1, Device 2, etc., through Device 64.

EXAMPLE: If you decide Device 1 is to be a lamp, when you say, "Lamp on," ***DEVICE 1*** will appear on the display panel. This is the DEFAULT setting for that particular lamp. If you prefer ***LAMP*** to appear on the display panel instead of ***DEVICE 1***, you may make that change following instructions in Section 12.3, Setting Up Alpha Displays.

7. **FOCUS TOLERANCE** - This determines how precisely you must speak to your BUTLER. The focus tolerance is DEFAULT set to 15; to change it, see Section 10.4.
8. **PHONE DIALER** - The Telephone System in your BUTLER will accept Touch Tone or Pulse Dialing. The DEFAULT is set for Touch Tone Dialing; to change it, see Section 9.6.1.
9. **BAUD RATE** - Used for computer communications. The DEFAULT is set to 4800 baud; to change it, see Section 9.7.
10. **SET HOUSE CODES** - For GOOD NIGHT, or ALL-OFF, command, the house code is set to House Code A **only**. To change it, see Section 9.8.
11. **12 OR 24 HOUR DISPLAY MODE** - The DEFAULT for this is the 12-hour mode, which is U.S. standard time, as opposed to the 24-hour mode, which would be European or military time. To change the DEFAULT, see Section 9.9.
12. **SET PASSES** - The number of training passes required to teach the BUTLER. The DEFAULT is 1 pass; to change this to 2 passes, see Section 10.2.

SECTION 8
SETTING MODULES

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8.3	Setting Up Appliances.....	8-4
8.4	Setting Up Wall Switches or Receptacles ..	8-4
8.5	Sample Set Up Diagram	8-6

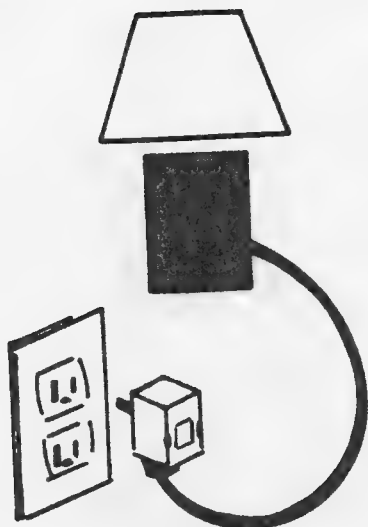


Figure 8-2

Lamp Module

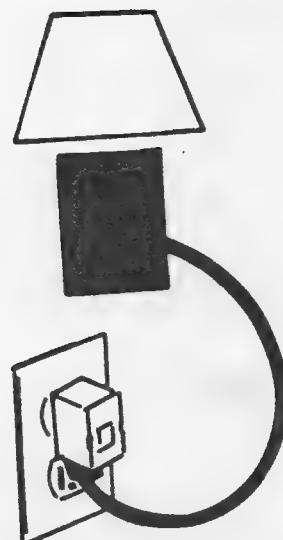


Figure 8-3

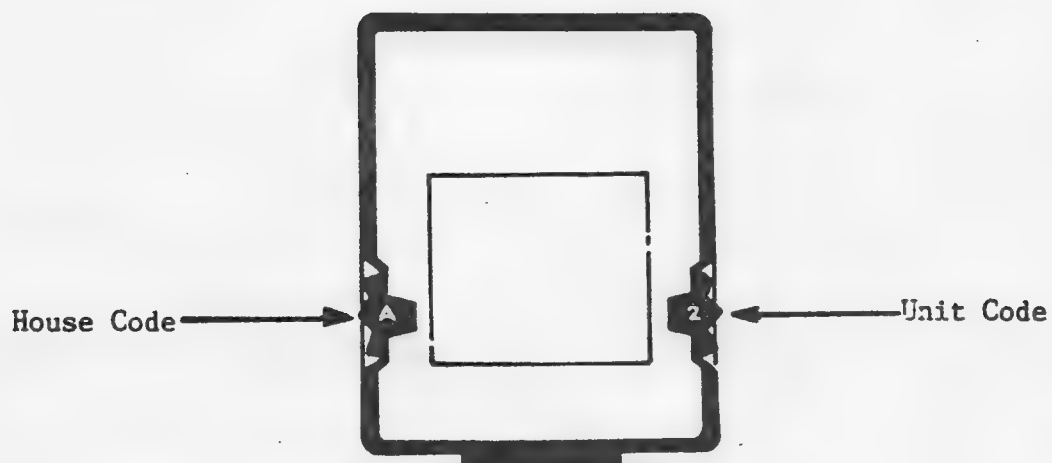


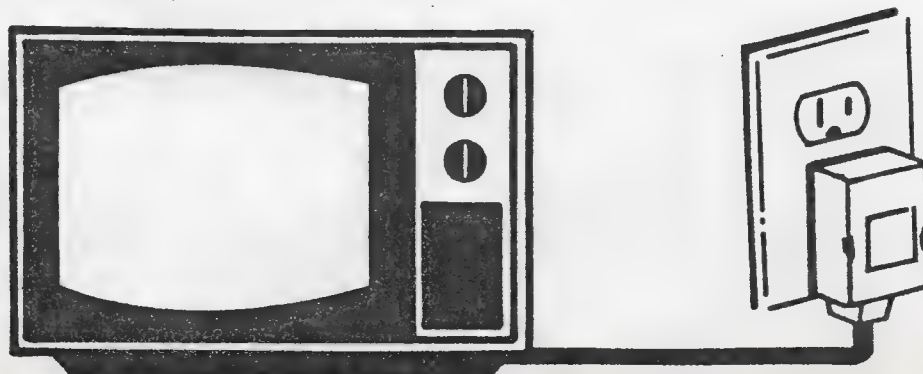
Figure 8-1
(Lamp or Appliance Module)



Figure 8-4

Figure 8-5

Appliance Module Only



8.1 INTRODUCTION

Two modules come with your **BUTLER-IN-A-BOX** (see Figure 2-1). One is a **lamp module** for incandescent lamps. The other is an **appliance module** for TV, radios, coffee makers, and so forth. These modules receive their information through a process known as **carrier current**, which means the signals sent to the modules from BUTLER or other controllers are transmitted through the wiring in your home's electrical system. Each lamp, appliance, or any other device you wish your BUTLER to operate requires an appropriate module.

Each module has two dials, one **red** and one **black**. The **red** dial is the House Code dial. It has 16 House Code settings, A through P, from which you may choose. The **black** dial is the Unit Code dial; it has numbers 1 through 16. By using the full range of House Code and Unit Code settings, you have a total of 256 possible combinations of devices available. Your BUTLER will control any of the 256 possible combinations. **Thirty-two** of these may be directly accessed by voice and **an additional 32**, or **64 total**, may be directly accessed by timers. The rest may be accessed in the Manual Control mode. To eliminate any possible confusion, we have provided a **Set Up Form** at the back of this Owner's Guide to aid you in establishing and recording the proper settings for your lamps, appliances and other devices. Remove the Set Up Form and proceed with setting up your lamps.

8.2 SETTING UP LAMPS

1. Set the **red** House Code dial on the lamp module to the selected House Code you prefer. Record this on your Set Up Form under Device Number 1, House Code (see Figure 8-1).
2. Set the **black** Unit Code dial on the lamp module to the 1 through 16 number of your preference and record this on your Set Up Form under Device 1, Unit Code (see Figure 8-1).
3. Plug the lamp into the lamp module's receptacle (see Figure 8-2).
4. Plug the lamp module into a standard 110 volt AC wall outlet (see Figure 8-3).
5. Turn the lamp ON/OFF switch until the light goes **ON**.
6. Repeat these steps with other lamps. Leave **ALL** of them **ON** until every light and appliance is set up.
7. As you proceed to set up your lamps, appliances and other devices, record the House Code letter and the Unit Code number for each on the Set Up Form.

EXAMPLE: On your Set Up Form the first 2 devices have been set up for you already. House Code A, Unit Code 1 is recorded as Device 1, Lamp. House Code A, Unit Code 2 is recorded as Device 2, Radio (see Section 8.3).

After all lamps have been set to their modules and recorded on the Set Up Form, you are ready to set up appliances.

8.3 SETTING UP APPLIANCES

1. Set **red** House Code dial on the appliance module to the desired House Code setting (see Figure 8-1).
2. Set the **black** Unit Code dial on the appliance module to the desired number from 1 through 16. If you pick the same number as the lamp module, the appliance will go ON and OFF at the same times as the lamp. This is desirable, for example, if you want to wake up to music and a bedside lamp turning on (see Figure 8-1).
3. Plug appliance (TV, stereo, coffee maker, etc.) into the appliance module's receptacle (see Figure 8-4).
4. Plug appliance module into a standard 110 volt AC wall outlet (see Figure 8-5).
5. If the appliance has an ON/OFF switch, turn it to the **ON** position. If it does not have an ON/OFF switch, it will not go on until the module receives an **ON** command.
6. Repeat steps above for other appliances. Leave them **ON** until all lights, appliances and other devices are set up.
7. Record on your Device Set Up Form the House Code letter and Unit Code number for each appliance you set up.
8. After you complete setting up your selected appliances with modules, set up any wall switch modules you desire.

8.4 SETTING UP WALL SWITCHES OR RECEPTACLES

1. Using a small screwdriver, turn House Code dial (**red** arrow) on wall switch module to desired House Code setting.
2. Turn Unit Code dial (**black** arrow) to an unused number, 1 through 16. Remember, if you pick the same number as on another module, they will go ON and OFF together (see Figure 8-1).
3. **TURN OFF POWER AT CIRCUIT BREAKER OR FUSE BOX.**

* * * * *

SETTING MODULES

4. Remove existing wall switch plate, unscrew all the wall switch plates from wall box, and disconnect wires from old wall switch.
5. See Figure 8-6 below. Connect the blue and black wires on wall switch module to the same two wires that went to the old switch. If one of the wires to the old switch is black, connect it to the blue module wire. Make sure connections are tight and bare wire ends cannot touch wall box. Use electrical tape to cover bare wire ends, if necessary.
6. Screw wall switch module back into wall box. Press the switch button until the light comes on. Replace wall switch plate.
7. Repeat steps 1 through 6 for all other wall switches you want to set up.
8. Record on the Set Up Form the House Code letter and the Unit Code number for each wall switch you set up.

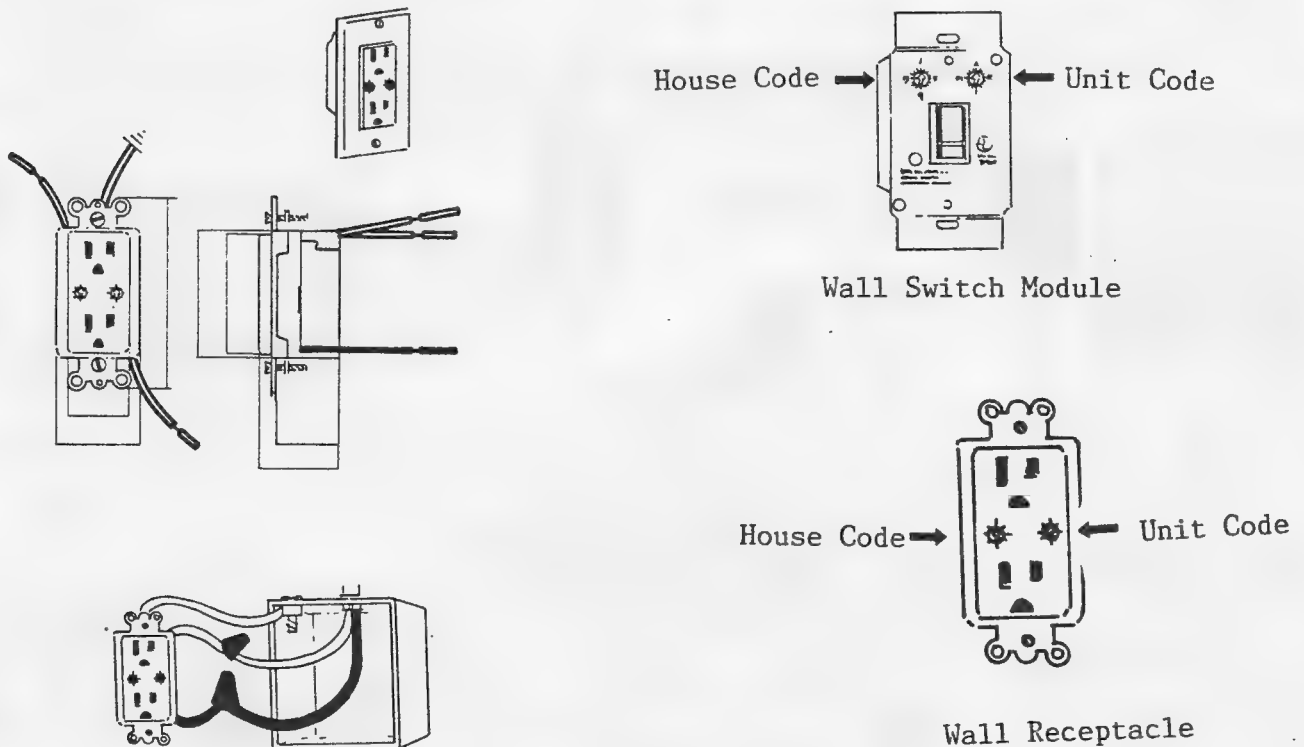
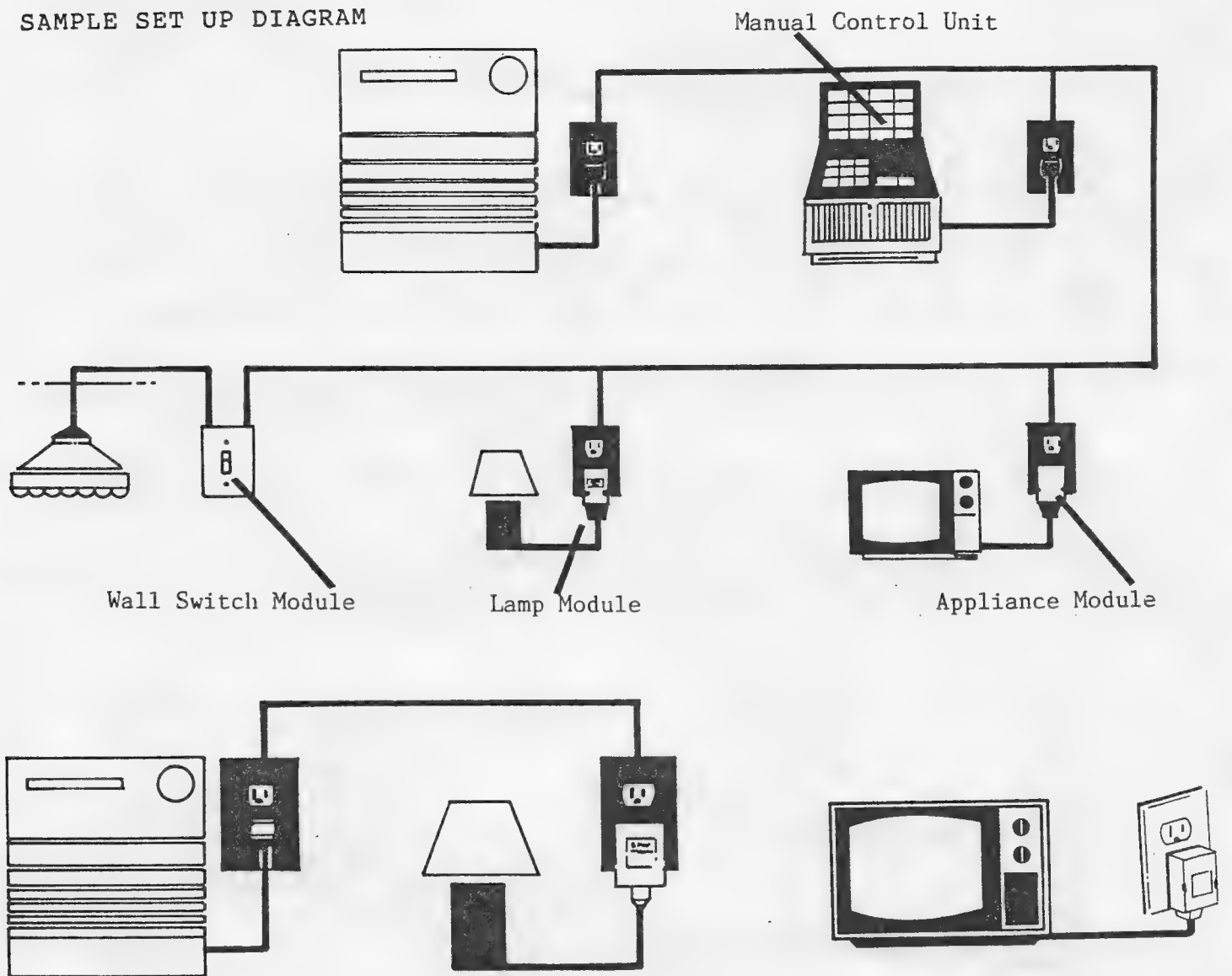
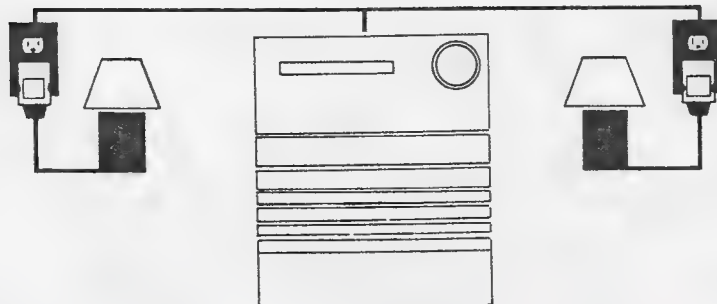


Figure 8-6

8.5 SAMPLE SET UP DIAGRAM



Typical System Configurations



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SETTING UP THE SYSTEM

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9.1 QUICK START

We prepared a **Quick Start Section** for those of you who want to put your BUTLER to work right away.

At this time, please prepare to listen to the training cassette tape that came with your unit. The tape, in conjunction with its referenced parts of the Owner's Guide, will enable you to most quickly learn to operate your BUTLER.

However, before you begin Quick Start it is most important that you understand the basic principles and operations of the system as explained in **ALL** the previous sections of this Guide. It is particularly important that you are completely familiar with placement of the unit and the safety precautions in Section 4 and the warranty information.

Because this method of instruction is purposely designed to be "quick," the tape will simply tell you to perform certain procedures. Once you have mastered these procedures, you may change any format, words or names you wish. All information on the tape, as well as instructions for making any changes you wish, are covered in detail in the various sections of your Guide.

9.2 SETTING UP CLOCK

The following is the procedure to set the proper day, time, and date in your clock once you have installed it. Your BUTLER has the ability not only to display time, he also can use this information to control lamps and appliances at predetermined times you desire. Setting the clock is one of the first steps in the beginning operation of your unit. To set up the clock, please follow these steps:

1. Press the **<MENU>** key once or twice, until you see ***OPERATIONS*** on the display panel.
2. Press the **<SEL/CANC>** key until ***SYSTEM SET UP*** appears; then press the **<ENTER>** key.
3. ***STORE PHONE #*** now appears. Press the **<SEL/CANC>** key until ***SET CLOCK*** appears; then press the **<ENTER>** key.
4. You will now see ***YEAR?*** Enter ONLY the last two numerals of the current year.

EXAMPLE: 1986 would be entered as 86.

Now select the proper number keys 0-9. For 86, you would press the **<8>** key and then the **<6>** key. If only "6" or

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only "8" or any other number is displayed, you have made a mistake. Press the <SEL/CANC> key, then press the correct number keys again. When *86* is displayed, press the <ENTER> key.

NOTE: If you press the wrong key when entering **ANY** information, you may correct it by pressing the <SEL/CANC> key and then pressing the correct key(s). This error correction procedure applies throughout this section.

5. Now you will see *DAY OF WEEK?*. Sunday is 1, Monday is 2, and so forth through Saturday 7. Press the appropriate number key 1 through 7 that indicates the current day.

EXAMPLE: If today is Wednesday, press the <4> key. When *4* appears on the display panel, press the <ENTER> key.

6. Next you will see *HOUR?*. Enter the correct hour, 1 through 12, for the current hour of the day.

EXAMPLE: Let's say you want to enter 9:15 a.m. (or p.m.); press only the <9> key. When *9* is displayed, press the <ENTER> key.

7. Now *9 A.M.?* should appear. Our example is for the morning hour, so press the <ENTER> key.

8. If you wanted to enter a p.m. time, you would press the <SEL/CANC> key until the p.m. time is displayed, then you would press the <ENTER> key.

NOTE: At this point in the menu, each time you press the <SEL/CANC> key, it will switch between a.m. and p.m. settings. When your desired setting is displayed, press the <ENTER> key.

9. You will see *MINUTES?* displayed on the panel. Press the correct number keys to indicate current minutes. In the example 9:15, you would press the <1> and the <5> keys; when the numbers appear on the panel, press the <ENTER> key.

NOTE: When the minutes are set, the seconds will reset to .00

10. Now *MONTH?* should be displayed. At this time you will enter the current month. January is 1, February is 2 and so forth through December 12.

EXAMPLE: If the current date is February 15, February is month 2, so you would press the number <2> key. When *2* appears on the display panel, press the <ENTER> key.

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11. You will see displayed ***TODAYS DATE?***, and that is exactly what you will enter now.

EXAMPLE: For our example, the date is the 15th day of the month, so you would press the <1> key, then the <5> key, and then the <ENTER> key.

You have completed setting up the clock in your new **BUTLER-IN-A-BOX**, and you will now see ***STORE PHONE #*** on the panel. You may change the device setting at this time by following the instructions in Section 9.4; or, you may press the <MENU> key, which will return you to the top of the menu, ***OPERATIONS***, and proceed with another operation.

9.3 SETTING UP DISPLAY LEVEL

As mentioned in Section 7.4, Default Settings, BUTLER offers a range of brightness levels from **VERY LOW** to **LOW**, **MEDIUM** and **HIGH** on the display panel, and the **DEFAULT** is factory set at **MEDIUM**. If this brightness level is satisfactory, you may skip this section. If you wish to dim or brighten the information shown on the display panel, please follow these steps:

1. Press the <MENU> key once or twice until ***OPERATIONS*** appears on the display panel.
2. Press the <SEL/CANC> key until ***SYSTEM SET UP*** appears, then press the <ENTER> key.
3. You will now see ***STORE PHONE #***; press the <SEL/CANC> key until ***DISPLAY LEVEL*** appears, then press the <ENTER> key.
4. ***VERY LOW*** now shows on the display panel and you may select the brightness level you wish the display information to be. Press the <SEL/CANC> key until the proper brightness level appears, then press the <ENTER> key.

NOTE: As the brightness options appear on the display panel, their brightness level will change in accordance with the word itself. For instance, **VERY LOW** will appear very dim on the display as compared to **HIGH**, which is the brightest level possible for the display.

9.4 SETTING UP DEVICES (OPTIONAL)

This Set Up Device section is optional. If you refer to the Set Up Form in the back of this Guide, you'll see that 64 devices already have been set up as described in Default Settings, Section 7.4. Device 1 is set to House Code A, Unit Code 1; Device 2 is set to House Code A, Unit Code 2, and so on. Device 17 would start with House Code B, Unit Code 1, and so on continuing with the devices through Device 64, which would be House Code D, Unit Code 16. You need to use this section of the Guide **ONLY** if you want to change the

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devices to house codes other than those that come standard with the unit or if you wish to set up ASCII codes.

NOTE: A device may also be set up using an ASCII code to send character information to your computer for voice control of the computer or as an I/O Port for sending a signal to the I/O Port for the expanded features described in Section 15.3, Additional Accessories. This section covers instructions for setting up devices as modules as well as a subsection on ASCII codes. Starting with devices as modules, we will use Device Number 1 for our example and will set it up as a lamp module. Please refer to your Set Up Form.

1. Starting with ***OPERATIONS*** on the display panel, press the **<SEL/CANC>** key until ***SPECIAL OPTIONS*** is displayed. Press the **<ENTER>** key.
2. ***SET UP TIMERS*** appears. Press the **<SEL/CANC>** key until you see ***SET UP DEVICES***, then press the **<ENTER>** key.
3. You will now see ***DEVICE# ?***. Select the device number you wish to install at this time. Our example is Device Number 1; so press the **<1>** key, then the **<ENTER>** key.
4. ***MODULE*** appears. This means that this device is being used as a module, like the lamp and appliance modules provided with your BUTLER; 3 other possibilities may be displayed:
 - a. ***ASCII CODE*** - To send a signal to your computer if you are using the Voice Control operating mode of your computer function. If this is your selection, follow these steps:
 - (1) With ***MODULE*** displayed, press the **<SEL/CANC>** key until ***ASCII CODE*** appears. Press the **<ENTER>** key.
 - (2) ***CODE #?*** will appear. Enter the number from 1 to 255 that corresponds to the ASCII code you wish transmitted through the serial port; press the **<ENTER>** key. ***DEVICE# ?*** will appear. If you wish to enter another ASCII code, press the **<ENTER>** key; ***MODULE*** will appear. Press the **<SEL/CANC>** key until ***ASCII CODE*** appears, then press the **<ENTER>** key and repeat the procedure for entering an ASCII code.
 - (3) If for use with Voice Mouse software (see Section 15.3, Additional Accessories - Model #VM00), now follow set up instructions in the Voice Mouse User Manual.
 - b. ***I/O PORT*** - If you are sending a signal to the I/O Port and the accessory expansion unit as described in Section 15.

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- c. ***EMPTY*** - This means that this device is not in current use.

To select one of the above possible settings for your device, you would press the **<SEL/CANC>** key until the appropriate choice was displayed on the display panel; then you would press the **<ENTER>** key. In this case, ***MODULE*** is our choice and it is already displayed, so press the **<ENTER>** key.

5. Now ***HOUSE CODE -A-*** will appear. This refers to the House Code selection dial of your module for Device 1. On your Set Up Form the House Code for Device 1 is A; so press the **<ENTER>** key. If you wish to change the House code press the **<SEL/CANC>** key and using the Alpha keys enter the new House Code (A-P) and then press the **<ENTER>** key.

6. ***UNIT CODE -1-*** will appear on the display panel. You will enter the proper Unit Code, 1 through 16, of the module you are using for this device. Per the sample on the Set Up Form, Module A-1, Lamp Module, the Unit Code would be 1; so press the **<ENTER>** key.

7. Displayed on your panel is ***IS: DEVICE 1***. This means that in the Voice Control mode, **"DEVICE 1"** will appear on the display panel when you give the command "Lamp." Press the **<ENTER>** key at this time. You have completed installing Device #1.

NOTE: The word **"DEVICE 1"** that appears on the display may be changed so that the word **"LAMP"** appears instead (see section 12.3, Setting Up Alpha Displays).

8. The panel will display ***DEVICE# ?***. You may install another device number at this time by entering the device number you wish, or you may press the **<MENU>** key twice and return to ***OPERATIONS*** and prepare for another operation. If you wish to review an established device number, select the one you wish. In this case, Device #1 has already been set up. Press the **<ENTER>** key, which will allow you to scroll through and review each setting in Device #1. If you wish to change any setting as it is displayed on the panel, press the **<SEL/CANC>** key and enter the correct information.

EXAMPLE: If you have House Code A Unit Code 1 and you want to switch to House Code A Unit Code 2, you would only have to change the 1 to 2.

If you wish to erase the device settings completely, at ***DEVICE# ?***, enter the device number you wish to erase. When the panel displays ***MODULE***, ***ASCII***, or ***I/O PORT*** information, press the **<SEL/CANC>** key until ***EMPTY*** is displayed. Then press the **<ENTER>** key and all information for that device will be erased.

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9.5 DIM FACTOR

Your BUTLER-IN-A-BOX provides you not only the ability to turn on or off a lamp, but also to dim it to a predetermined preference. You may select the level of dimness BUTLER will activate by voice command or by timer. An average level has already been established for you. You will need to use this section of the Guide ONLY if you wish to change the dim factor to a setting other than the DEFAULT. If you do, please follow these steps:

1. Begin by pressing the <MENU> key until *OPERATIONS* appears.
2. Press the <SEL/CANC> key until *SYSTEMS SET UP* is displayed, then press the <ENTER> key.
3. Press the <SEL/CANC> key until *DIM FACTOR* is displayed, then press the <ENTER> key.
4. *DIM 1 STEP* is now displayed. This means that the dim level will dim 1 step at a time. If you would rather have it dim in multiple steps, press the <SEL/CANC> key and have it dim 2, 3 or a maximum dim of 4 steps. Press the key until the appropriate dim step is displayed and then press the <ENTER> key. Press the <MENU> key twice to return to *OPERATIONS*.

9.6 SETTING UP TELEPHONE

Your BUTLER comes with a complete telephone, speakerphone and dialing system. By connecting the BUTLER directly to any standard telephone wall jack, he can receive phone calls, place phone calls by Pulse or Touch Tone dialing, and he may even store in the system up to 16 phone numbers per User. Once a call has been placed, either through the manual phone dialer (Section 11.3) or in Voice Control, your BUTLER will become a two-way speakerphone. Upon recognizing a busy signal, a dial tone or a circuit busy signal, he will hang up automatically.

NOTE: The only thing your BUTLER will NOT do is ring when you have an incoming call. The ringing of your other telephones will alert you to incoming calls.

The following procedures are for setting up your telephone:

9.6.1 PULSE OR TONE DIALING

1. With *OPERATIONS* on the display panel, press the <SEL/CANC> key until *SYSTEM SET UP* appears; press the <ENTER> key.
2. The display shows *STORE PHONE #*. Press the <SEL/CANC> key until *PULSE OR T.-TONE* appears; press the <ENTER> key.

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3. ***PULSE-DIALING?*** appears. Now you will select whether you wish Pulse or Touch Tone dialing. By pressing the **<SEL/CANC>** key you will switch between ***TOUCH TONE-PHONE?*** and ***PULSE-DIALING?***. Press the **<SEL/CANC>** key until the proper selection is on the display; press the **<ENTER>** key.

9.6.2 STORING TELEPHONE NUMBERS

Your **BUTLER-IN-A-BOX** has the ability to store and dial up to 16 telephone numbers per User. These numbers will be recalled and dialed at your request when you are in the Voice Control mode. The following procedure is used to store the 16 numbers of your choice in the system for your future reference:

1. Begin by pressing the **<MENU>** key until ***OPERATIONS*** appears on the display,
2. Press the **<SEL/CANC>** key until ***SYSTEM SET UP*** appears; then press the **<ENTER>** key.
3. ***STORE PHONE #*** appears; press the **<ENTER>** key.
4. You will now see displayed ***USER 1***.

NOTE: Your BUTLER is able to recognize and respond to the voices of up to 4 different Users. The Users are designated User 1, User 2, User 3 and User 4. These User numbers may be changed to any name you desire (see Section 10.13, Setting User Names). BUTLER is able to distinguish which User is speaking and he will respond appropriately to each User's commands. Users may be added to or deleted from BUTLER's memory to correspond with your current requirements. Users may be male or female and may speak in any language, using any accent or dialect that is natural to them, to teach BUTLER.

If you are User 1, press the **<ENTER>** key. If you are User 2, 3 or 4, you would press the **<SEL/CANC>** key until your User number is displayed on the panel, then you would press the **<ENTER>** key.

5. The display now shows ***SELECT 1-16:***, a request for you to tell the system the sequence number of the telephone number you wish to set up at this time. You are setting up the first telephone number, so press the **<1>** key and then the **<ENTER>** key. On the Set Up Form, the first telephone number is recorded as "Police."
6. Displayed on your panel is ***IS: NAME #1***. This means that in the Voice Control mode, ***NAME #1*** will appear on the display panel when you ask your BUTLER to call "Police." Press the **<ENTER>** key.

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NOTE: The word "NAME #1" that appears on the display may be changed so that the word "POLICE" would appear instead (see section 12.3, Setting Up Alpha Displays).

7. The display now shows *EMPTY*. This means that there is currently no telephone number stored for NAME 1. Press the <SEL/CANC> key until *NO. :* is displayed. Now press the number keys on the keyboard that correspond to the telephone number you wish to store (including, for long distance calls, the "1" access to area codes and the codes themselves). Each number will appear on the display as you enter it; when the entire telephone number is displayed, press the <ENTER> key.

EXAMPLE: The number 1-213-555-1212 would be entered as follows: Press the <1>, <2>, <1>, <3>, <5>, <5>, <5>, <1>, <2>, <1> and <2> keys, then press the <ENTER> key. This number is now stored in the #1 position.

NOTE: It isn't necessary to use hyphens, or dashes, in telephone numbers, but you may do so if you wish. To enter a hyphen, press the third Alpha Select key (marked **UPDATE**), then the <1> key. Each use of a hyphen causes about a 3-second delay in the dialing process.

8. *SELECT 1-16:* appears again, a request for you to enter and store another telephone number. You will be entering the second number you wish to store, so press the <2> key; *NAME #2* appears. Press the <ENTER> key; *EMPTY* appears. Now enter the second telephone number following the same procedure as for the first number. All 16 numbers are stored in this manner. If you have less than 16 numbers to store now, after you enter the last one, simply press the <MENU> key to return to the top of the menu.

NOTE: The Voice Control operating mode procedure for **PLACING** telephone calls using your stored numbers as well as for **RECEIVING** calls is covered in Section 11.1.2.

9.7 SETTING BAUD RATE

Baud rate is the speed at which computers communicate with each other. Since your BUTLER is in reality a highly sophisticated computer, it has the capability to communicate with other computer systems. This is useful in saving all the information from your BUTLER to a computer for future reference, as described in Section 13.6 and Section 13.7, Saving Memory and Restoring Memory. **To do this you must be sure that your BUTLER and your computer have compatible matching speeds.** Three basic speeds are used; they are the baud rates of 300, 1200 or 4800. BUTLER'S DEFAULT for this is 4800. **This is an optional section of the Owner's Guide; it is used only in the Advanced Function area and may be skipped if you don't wish to change the baud rate. If you do wish to change the baud rate to another speed, follow these steps:**

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1. Begin by pressing the <MENU> key until ***OPERATIONS*** appears on the display.
2. Press the <SEL/CANC> key until ***SYSTEM SET UP*** appears; press the <ENTER> key.
3. ***STORE PHONE #*** is now on the display. Press the <SEL/CANC> key until ***SET BAUD RATE*** appears; press the <ENTER> key.
4. ***BAUD-RATE:4800*** will appear. You may now select another speed by pressing the <SEL/CANC> key. When the appropriate baud rate is displayed, press the <ENTER> key. The display will return to ***STORE PHONE #***, which is the beginning of the System Set Up menu. You may press the <MENU> key to return to the top of the system's main menu.

9.8 SETTING HOUSE CODES

Your BUTLER has the ability to operate and control a total of 256 separate devices. This total is comprised of basically 16 separate house codes, A through P. At some point you may wish to deactivate or turn off many appliances or lamps at the same time without having to give individual commands for each device. This can be done in the Voice Control and Manual Control sections by using the **ALL-OFF**, or **GOOD NIGHT**, command.

You may want to exclude certain devices from the **ALL-OFF** command. Examples of these might be a swimming pool filter that would be operating once a day or a home heating system that would stay on even though everything else is being shut off. All those devices you do **NOT** want to be shut off on the **ALL-OFF** command would be set to a House Code that would be excluded from the **ALL-OFF** command. The **DEFAULT setting for the Setting House Codes on the ALL-OFF command is House Code A ONLY**. All other house codes will be ignored in the **ALL-OFF**, or **GOOD NIGHT**, command. You may proceed only if you wish to change the defaults to a different setting. The following is the procedure for including in or excluding from the **ALL-OFF** command the House Codes you set up in Section 8, Setting Up Modules.

1. Press the <MENU> key until ***OPERATIONS*** appears on the display.
2. Now press the <SEL/CANC> key until ***SYSTEM SET UP*** appears, then press the <ENTER> key.
3. Press the <SEL/CANC> key until ***SET UP HOUSE CODES*** appears; press the <ENTER> key.
4. ***HOUSE CODE A YES?*** now appears. This is the **DEFAULT** setting for the **ALL-OFF** command; if you wish to keep this

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setting, press the <ENTER> key. If you wish to change the DEFAULT and exclude House Code A from the ALL-OFF command, press the <SEL/CANC> key. *HOUSE CODE A NO* now appears on the display; press the <ENTER> key and House Code A will be excluded from the ALL-OFF command. Each time you press the <SEL/CANC> key, the display will switch between *HOUSE CODE A NO* and *HOUSE CODE A YES*.

5. After you have entered your House Code A selection, *HOUSE CODE B NO?* will appear. Then, substituting House Code B for House Code A, follow Step 4. Repeat this procedure for all other House Codes, C through P, until all House Codes have been set up as you wish insofar as the ALL-OFF command is concerned.

Using this procedure it will be possible to shut off all lamps and appliances in all the House Codes except whatever specific House Code(s) you have excluded from the ALL-OFF command, for example, House Code M. All the lamp and appliance modules set to House Code M would remain ON, even though the ALL-OFF, or GOOD NIGHT, command was given.

9.9 12 OR 24 HOUR DISPLAY MODE

Your clock has the option of displaying either the standard 12-hour a.m./p.m. times or the 24-hour military or European time. If you wish to change the DEFAULT setting, which is the standard a.m./p.m. display, follow these steps:

1. Starting with *OPERATIONS* on the display, press the <SEL/CANC> key until *SYSTEM SET UP* appears; press the <ENTER> key.
2. Press the <SEL/CANC> key until *12/24 HR. DISPLAY* appears; press the <ENTER> key.
3. *AM/PM DISPLAY?* now appears. This means that when the current time appears on the display, it will be displayed as standard time, 1 a.m. or 1 p.m., for instance. If this is your choice, press the <ENTER> key. Or, if you prefer to have the 24-hour military or European time displayed instead, press the <SEL/CANC> key; *24 HOUR DISPLAY?* will appear; now press the <ENTER> key. After you have entered your selection, the system will return to the beginning of the System Set Up menu and *STORE PHONE #* will be displayed.

9.10 SET ACTIVATE

Activate is a command in the voice control section used as a momentary on-off switch with a definable 0 to 60 second delay. If you wish to change the ACTIVATE setting, which is set at 1 second. Proceed with the follow these steps:

1. Starting with ***OPERATIONS*** on the display, press the **<SEL/CANC>** key until ***SYSTEM SET UP*** appears; press the **<ENTER>** key.
2. Press the **<SEL/CANC>** key until ***SET ACTIVATE*** appears; press the **<ENTER>** key.
3. ***ACTIVATE DELAY:*** now appears. The number of seconds of delay for the activate command (1-60 seconds) should now be entered. After the correct number of seconds have been selected press the **<ENTER>** key.

SECTION 10
TEACHING YOUR BUTLER

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10.1 OVERVIEW

This section is the most complex and the most extensive in the Owner's Guide. It is also the most important. When we say "complex," we don't mean that the information is difficult to comprehend, it's simply different from anything you've ever encountered. In this section we instruct you how to teach your BUTLER to learn, to recognize the words spoken to him, to distinguish voices and to recognize whose voice he will obey.

BUTLER's futuristic software enables him to recognize and respond to the voices of up to 4 different Users. The Users are designated User 1, User 2, User 3 and User 4. These User numbers may be changed to any name you desire (see Section 10.13, Setting User Names). BUTLER is able to distinguish which User is speaking and he will respond appropriately to each User's commands. Users may be added to or deleted from BUTLER's memory to correspond with your current requirements. Users may be male or female and may speak in any language, using any accent or dialect that is natural to them, to teach BUTLER.

BUTLER-IN-A-BOX is a highly sophisticated, precisely designed and engineered electronic device. He is a remarkably versatile system, with capabilities unlike any other system you've ever owned before. How well he operates for you is SOLELY DEPENDENT upon your proper implementation of the procedures in this section. Each of the steps must be followed in order and followed exactly so that your BUTLER will be able to learn correctly. Once you have mastered the teaching process in this section and your BUTLER is properly trained to meet the special needs of your home, you will be able to fully use and appreciate the unique services he can perform.

Your teaching process will be much easier and the operation of your BUTLER will be greatly enhanced if you will imagine the following situation:

You've just hired a butler who is slightly hard of hearing, knows no language, and responds best to a natural sounding voice. So your normal speaking voice must be louder than usual and you must speak very clearly when you teach him the words he needs to know to carry out your wishes. You must always speak to him this same way, because he is confused by any changes. A difference in the sound of a word as you taught it to him and the sound of that same word when you speak it later would be a change to him. This is because he is capable of **RECOGNIZING** the words you taught him, but he is **NOT** capable of **UNDERSTANDING** them. What he recognizes is the word sound he was taught and which task he is to perform when he hears that same sound. For example, you can teach him to turn on the radio when you command him to, but he will not know what a radio is. Therefore, if your voice sounds one way when you say "radio" during the teaching phase and

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another way later on when you tell him to turn on the radio, the butler will think he is hearing a new word or a new voice he is not expected to respond to, and consequently he will not carry out the command.

That situation probably isn't an accurate depiction of any human butler, but it is a very elementary explanation of the principle of voice recognition technology, which is the basis of your new **BUTLER-IN-A-BOX**. Awareness of that principle will be most helpful to you as you teach your BUTLER, so please keep it in mind as you follow the procedures detailed in this section.

In the instruction phase below, you will be requested to refer to the Set Up Form, which has the suggested vocabularies to use in the beginning stages of teaching. The key to having your BUTLER work properly is to talk to him in the training phase the same way you'd speak naturally if you were calling across a room in a clear, authoritative voice. Don't read the list of commands like a script as you are entering them into the system. If you do, then later in the voice recognition operation when you speak more normally, your BUTLER will not recognize your words. Again, the key is to speak loudly, clearly and naturally as you are teaching your BUTLER. When you're in the training phase, pretend that you are actually speaking to your BUTLER from across the room in a real-life situation. Also, please remember that he has the ability to **RECOGNIZE** words, **NOT UNDERSTAND THEM**. Therefore, he must be spoken to in the same manner each time in order for him to recognize the commands. Now proceed to start teaching your BUTLER with this thought: **BE PATIENT**. This is a brand new experience for you and for your BUTLER. There is no right or wrong way to go about this teaching process. Success comes with experience, and you can have a great deal of fun on your way to very satisfying results.

Please follow these recommendations as you are teaching your BUTLER for the first time:

1. Use no more than 4 or 5 lamps and appliances and no more than 4 or 5 telephone numbers. This will enable you and your BUTLER to become familiar with each other before you add all the words you eventually will want him to recognize. Since he may confuse or incorrectly recognize words, you will need to learn which words he can recognize better than others. For instance, "On" and "Off" may tend to be confusing words to BUTLER. With the distinction of "On" and "Off, please," confusion is minimal. BUTLER's confusion in word recognition will vary from User to User, and it happens only in the beginning as Users are first experiencing the system.
2. Position yourself no more than 5 feet way from your BUTLER until you have mastered the teaching process. After you

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are experienced in teaching, position yourself half the distance between the unit and the place where you'll generally be giving voice commands. For instance, if your BUTLER will be in the corner of a 20-foot room, position yourself 10 feet away from him when you're teaching him. This will give him the greatest flexibility of distance to "hear" you.

3. When speaking words from the vocabulary list, always speak naturally, but loudly and clearly, as if you were talking across the room to a person slightly hard of hearing.
4. Use single word commands of 1 to 4 syllables or short phrases (such as "music system" or "air conditioner") that vary as much as possible in sound, and avoid longer phrases as they are more difficult for your BUTLER to recognize.
5. Differ the names of your devices as much as possible. For instance, instead of "TV" and "toaster," try using "TV set" and "toaster oven." This type of variation will improve BUTLER's word recognition, especially from a distance when there is noise in the room.
6. **DON'T FIGHT THE SYSTEM.** When you're in the Teach Section phase or the Check and Learn phase, your BUTLER may confuse one word with another, even though they sound completely different to you. For instance, words as dissimilar as "ash" and "Mississippi" to him may sound the same. If he cannot learn some words you try to teach him, change them to something he can more easily recognize.

The teaching process is located in the **LEARNING SECTION** of the system, which is divided into 2 major areas, **SET UP SECTION** and **TRAIN SECTION**. Please refer to the **System Menu Flow Chart** and **System Menu Descriptions** at the back of this Owner's Guide.

Many menu items in these sections are optional and may be skipped in the training process. As you come to each of these sections in the Guide, you'll see they are marked either **Optional** or **Required**. Of the 12 menu items possible, only 4 are **absolutely required** in order for your BUTLER to function. They are, in order of importance: **Microphone Check**, **Speaker Adaption**, **Teach Section** and **Check and Learn**. All the other menu items are optional and may be skipped.

NOTE: The last User of any item on the menu will appear on the display panel when this menu item is entered again.

To explain the procedure for identifying yourself, we will use the **Teach Section** of the **TRAIN SECTION** menu for our example.

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EXAMPLE: You have selected the **Teach Section** item on the menu and ***USER 1*** appears. This means that User 1 was the last person to use this part of the menu. If you are User 1, press the **<ENTER>** key. If you are User 2, 3 or 4, press the **<SEL/CANC>** key until your User number appears, then press the **<ENTER>** key and you will be entered into this part of the menu. This procedure applies to ALL MENU items in the **LEARNING SECTION**.

LEARNING PASSES - This refers to how many times you must say each word when you are training your BUTLER. Generally only 1 pass, or saying the word once, is sufficient. Because of their voice quality or noise level in the room, some people may require 2 passes. The **DEFAULT** of this setting is 1 pass.

MICROPHONE CHECK - This is used to test the sensitivity setting of the noise level in the room where BUTLER will be set up. This would be used in the Balancing Procedure and initial Set Up and check out phase of your unit. **This section is required.**

SET FOCUS - This is a tolerance setting for how distinctly you must speak so that your BUTLER can recognize your words. The higher the focus, the more precisely you must speak; the lower the focus, the more relaxed you may speak. Some experimentation with this may be necessary to determine what is overall best for you. The **DEFAULT** setting for this is 15. Raising it to 40 would require you to speak more distinctly; lowering it to 10 would permit you to speak less distinctly. Generally, this setting is established when you first set up your system and would not usually require changing. An example of an exception to that is, if you have a cold which alters your normal voice, you could lower the focus setting during that brief period and after recovery of your normal voice, you could return the focus to its usual setting.

SPEAKER ADAPTION - This deals with your BUTLER learning to recognize the Users' voices. He will use this capability to distinguish which one of Users 1, 2, 3 or 4 is speaking. **This speaker adaption phase is required.** If you skip this phase your BUTLER will not be able to proceed in the **Teach Section**. All Users, before they attempt to teach individual words, must first go through this **Speaker Adaption** phase.

DELETE A USER - This area is used to remove from BUTLER's memory any one of the 4 Users. For example, if you have a User vacancy in your system you may wish to set up a visitor's voice only to demonstrate BUTLER's powers of voice recognition, but do not want the visitor's voice to remain in the system; you would apply the Delete a User procedures to erase BUTLER's memory of the visitor's voice.

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We will now proceed with the procedures for **Learning Passes**, the first part of the **SET UP SECTION**.

10.2 LEARNING PASSES (Optional)

This menu selection allows you to determine whether you will make 1 or 2 passes, or repetition of words, in the **Teach Section** of the system. The **DEFAULT** setting for this is 1 pass. You may skip this section if you wish; however, if you do want to make a change, proceed with the following steps:

1. Begin by pressing the **<MENU>** key until ***OPERATIONS*** appears on the display.
2. When ***OPERATIONS*** appears, press the **<SEL/CANC>** key until ***LEARNING SECTION*** appears; then press the **<ENTER>** key.
3. ***TRAIN SECTION*** is now on the display. Press the **<SEL/CANC>** key until ***SET UP SECTION*** appears, then press the **<ENTER>** key.
4. ***SPEAKER ADAPTION*** is now on the display. Press the **<SEL/CANC>** key until ***SET PASSES 1-2*** appears, then press the **<ENTER>** key.
5. ***TRAIN 1 PASS*** appears. To switch from 1 pass to 2 passes, press the **<SEL/CANC>** key; the display now shows ***TRAIN 2 PASSES***. Press the **<ENTER>** key and you will have 2 training passes when you set up voice in Section 10.7, Teach Section.

10.3 MICROPHONE CHECK (Required)

THIS SECTION IS MOST IMPORTANT, IT IS WHERE MOST PEOPLE GO WRONG.

This section will reconfirm the balancing you did in the beginning stages of setting up your BUTLER and will check your voice for proper volume when you speak to him. **CHECK ALL WORDS SPOKEN FOR THE CORRECT NUMBER OF STARS.** (See below.) To proceed with **Microphone Check** use the following steps:

1. Begin with ***OPERATIONS*** on the display; press the **<SEL/CANC>** key until ***LEARNING SECTION*** appears and then press the **<ENTER>** key.
2. ***TRAIN SECTION*** is now on the display. Press the **<SEL/CANC>** key until ***SET UP SECTION*** appears; press the **<ENTER>** key.
3. ***SPEAKER ADAPTION*** now appears. Press the **<SEL/CANC>** key until ***MICROPHONE CHECK*** appears; press the **<ENTER>** key.
4. You will see ***SAY WORD NOW!***. If the TV and radio are on at proper levels, no asterisk should appear on the right side of the display panel. An asterisk should appear there **only**

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when you say a word or phrase; then * ***** * should appear. This is information about how well your words are being received by the system. The more asterisks, the better your BUTLER is hearing you. He is not recognizing the word at this point, just making sure your voice is loud enough and has enough information for him to pick up your words.

NOTE: When you say the entry word (the name you have given your BUTLER) the display should fill with NO LESS THAN 7 ASTERISKS; for all other commands, no less than 4 asterisks should appear.

NOTE: The red sensitivity light on the front of the BUTLER should blink once for every syllable of the words you speak. If you say "alarm," the light should blink twice; with "lamp" it should blink once; with "TV set" it should blink three times. If the light is not blinking once per syllable, you could have trouble making your BUTLER recognize your words. You should try (1) speaking louder and/or more distinctly; (2) raising the sensitivity level slightly; and/or (3) moving a little closer to the unit when you give the command.

IMPORTANT - ADDITIONAL TIPS

Please note that if your Butler is trained properly, it will not be "touchy" about recognizing commands, it's own name, etc. Some symptoms of training errors include repeated "false tripping" (meaning that the Butler responds as if called upon, but without having been addressed by name), difficulty in getting the Butler's attention when his name is called, or confusions between device names or commands which result in errors when the unit is in use..

The solution in any of the above cases is very easy. In the Microphone Check section, it is vital that at least 4 stars (****) are displayed after saying any device name or command. The entry word requires at least 7 stars (*****). If you are having trouble with a given word, just go to the Microphone Check section and say the word several times the way you trained it in the Teach Section. If you do not **regularly** achieve the correct number of stars when a given word is said, it is likely that the word was taught improperly in the Teach Section too.

Example: Let's say that when you ask your Butler to "dim" a lamp, it responds incorrectly (with, say, "on"). When you check the word "dim" in the Microphone Check section you find that you are only getting 3 stars (***) about 75% of the time, rather than the 4 stars required. At this point you can either try saying the word a bit differently (slightly more volume, stretching the word, etc.) or just change the command itself. Ie: In this example, you might try "dim the lights" instead of just "dim." The key here is to find the word or words which allow you to routinely get the correct number of stars, then to train that name or command into the Butler in place of the one you were having trouble with.

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This step is very individual. What works for one person will not necessarily be best for another. Find the word or words which work best for you.

10.4 SET FOCUS (Optional)

The DEFAULT setting for **Set Focus** is 15. If you want to change it, follow these steps:

1. With ***OPERATIONS*** on the display, press the **<SEL/CANC>** key until ***LEARNING SECTION*** appears; press the **<ENTER>** key.
2. ***TRAIN SECTION*** is now on the display. Press the **<SEL/CANC>** key until ***SET UP SECTION*** appears; press the **<ENTER>** key.
3. ***SPEAKER ADAPTION*** appears; press the **<SEL/CANC>** key until ***SET FOCUS*** appears, then press the **<ENTER>** key. ***USER 1*** appears. This means that User 1 was the last person to use this part of the menu. If you are User 1, press the **<ENTER>** key. If you are User 2, 3 or 4, press the **<SEL/CANC>** key until your User number appears, then press the **<ENTER>** key and you will be entered into this part of the menu.
4. ***FOCUS IS: 15*** appears. If you press the **<ENTER>** key at this time, ***PHONE FOCUS:18*** will appear. These two menu items are the current focus, or accuracy, settings for your BUTLER's recognition of your words. To change either setting, you would press the **<SEL/CANC>** key and the numbers (15 or 18) will disappear from the display. At that point you may enter any new number you wish.

EXAMPLE: To enter the number 20, press the **<2>** key and the **<0>** key; the number 20 will appear on the display. If you make a mistake, press the **<SEL/CANC>** key and enter the correct number.

NOTE: The phone focus should be raised if, when you are using your unit in the speakerphone mode, your BUTLER interprets your telephone conversation as commands to him and interrupts your conversation too frequently.

5. Once the desired number has been entered, press the **<ENTER>** key. The new focus will be accepted for that User and ***USER 1*** will appear on the display. You may now proceed to any other menu choice in the **LEARNING SECTION** by pressing the **<MENU>** key once.

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10.5 SPEAKER ADAPTION (Required)

The **Speaker Adaption** phase is very important. Unless you have accomplished this phase for each User, the **Teach Section** will not function properly. During this phase of training the room should be totally quiet with no one speaking except the User who is training the BUTLER. Please refer to **NOTE**, Section 10.3, **Microphone Check**, about the blinking red sensitivity light and keep this information in mind as you proceed with Speaker Adaption.

NOTE: You must complete this section before teaching your BUTLER and you must **NOT** go back into it after teaching him or the words you taught him will be erased from his memory. A different User, however, may use Speaker Adaption without affecting other Users' training.

1. Starting with ***OPERATIONS*** on the display, press the **<SEL/CANC>** key until ***LEARNING SECTION*** appears, then press the **<ENTER>** key.
2. ***TRAIN SECTION*** now appears; press the **<SEL/CANC>** key until ***SET UP SECTION*** appears and then press the **<ENTER>** key.
3. Now ***SPEAKER ADAPTION*** appears; press the **<ENTER>** key. ***USER 1*** appears. This means that User 1 was the last person to use this part of the menu. If you are User 1, press the **<ENTER>** key. If you are User 2, 3 or 4, press the **<SEL/CANC>** key until your User number appears, then press the **<ENTER>** key and you will be entered into this part of the menu.
4. ***SAY WORD NOW! ****** on the display is a request for you to speak words or phrases to your BUTLER so he can learn to recognize your voice. We recommend that you speak the 10 specific words listed below because they give the widest range of the sound and flexibility of your voice. If you wish to use other words, do so after you have become familiar with the system. Speak each word AFTER the "****" disappears from the display.

1. Air Conditioner	6. Table lamp
2. Mood Lighting	7. Television
3. Airplane	8. Six
4. Typewriter	9. Wednesday
5. On	10. April
5. When all 10 words or phrases have been entered, press the **<MENU>** key.

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10.6 DELETE A USER (Optional)

If you no longer want BUTLER to be under the control of any of the 4 Users, the following procedure may be used to delete that User:

1. With ***OPERATIONS*** displayed, press the <SEL/CANC> key until ***LEARNING SECTION*** appears; press the <ENTER> key.
3. ***TRAIN SECTION*** is now on the display. Press the <SEL/CANC> key until ***SET UP SECTION*** appears; press the <ENTER> key.
4. ***SPEAKER ADAPTION*** appears; press the <SEL/CANC> key until ***DELETE A USER*** appears, then press the <ENTER> key.
5. ***USER 1?*** appears. Press the <SEL/CANC> key until you see the number of the User, 1 through 4, you wish to remove from BUTLER's memory; at that point, press the <ENTER> key.
6. ***ARE YOU SURE?*** will appear. This gives you an opportunity to reconsider. If you change your mind about deleting that User, you may press the <SEL/CANC> key or the <MENU> key without losing the memory of that User in the system. If you are certain you want to delete that User, press the third Alpha Select key, then the <Y> key, then the <ENTER> key and all memory and recognition of that User will be removed.

10.7 TEACH SECTION (Required)

A. Before you actually start to teach your BUTLER new words, it will be helpful to slowly scroll through the menu to familiarize yourself with the vocabulary entry sections available to you. As you do this, notice their corresponding parts on the Set Up Form for Vocabularies (other side of the Set Up Form for Devices).

1. With ***OPERATIONS*** on the display, press the <SEL/CANC> key until ***LEARNING SECTION*** appears; press the <ENTER> key.
2. ***TRAIN SECTION*** now appears; press the <ENTER> key.
3. Press the <SEL/CANC> key until ***TEACH SECTION*** appears; then press the <ENTER> key. Next, follow User number entry procedure (see **EXAMPLE**, top of Page 10-5).
4. ***COMMANDS*** is on the display. This menu selection corresponds to the Commands Section of 9 words on your Set Up Form for Vocabularies.
5. Press the <SEL/CANC> key and ***ALARM*** will appear. This is the part of the system where you will enter your Alarm Vocabulary.

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6. Press the <SEL/CANC> key and you will see ***DEVICES*** on the display. This is the entry point of the Devices vocabulary; its corresponding part on the form is Set Up Devices, with Devices 1 through 32 reserved for voice command.
7. Pressing the <SEL/CANC> key now will bring up ***TELEPHONE*** on the display; here you will enter your Telephone Vocabulary.
8. Press the <SEL/CANC> key once more and ***COMMANDS*** will return to the display.

B. Now we shall train the first vocabulary section, Commands, the 9 words on your Set Up Form for Vocabularies. REMINDER: The room must be as quiet as possible, free of all noise, including entertainment units, children and pets. Facing your unit, position yourself about 5 feet away from it. Speak in a loud clear voice and speak normally, not as if you're reading from a script. **Do not press the <ENTER> key until you are completely ready to start the training process.** Once you do press the <ENTER> key, your BUTLER will be immediately ready to start learning. Before you start, please refer again to NOTE, Section 10.3, Microphone Check, about the blinking red sensitivity light and keep this information in mind as you proceed to teach your BUTLER.

NOTE: After you have trained these vocabulary sections of your BUTLER, if later on you wish to add or change a word in any vocabulary, it isn't necessary to repeat the Teach Section; simply follow the procedure in Change a Word, Section 10.11.

1. Press the <ENTER> key; Command 1, ***SAY ENTRY***, will appear. This is requesting you to say the name of your BUTLER. For our example the name is Godfrey, so clearly say "Godfrey."
2. As soon as you've said "Godfrey," ***SAY KILL*** will appear on the display. At this point you may teach your BUTLER to recognize and **IGNORE** any sound you wish. For example, the barking of your dog or a person's whistling may tend to activate your system. By entering such sounds in this "Kill" part of the system, you will teach your BUTLER to recognize and ignore them. You may wish to reserve this vocabulary command for later training and continue with the third command word. If so, simply **"Whistle"** and wait for the next command word to appear on the display.

NOTE: If more than 1 User will be operating your BUTLER, each user must call the butler by a different name. Since the **ENTRY** word always is your BUTLER's name, it would be helpful if all Users give him a different name. This will also help your BUTLER know which User is speaking to him.

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3. Next you'll see ***SAY NO*** on the display. Say the word **"No."**
4. Continue to loudly and clearly say each word after it appears on the display.
5. Once you have said the last word in that vocabulary, you will see ***COMMANDS*** on the display. This means you have completed setting up the Commands Vocabulary.

NOTE: If you make a mistake or simply wish to redo any COMMAND, press the **<ENTER>** key and repeat the procedures in order. If you are satisfied with your entries in the Commands Vocabulary and wish to train the other vocabulary sections, proceed with the next step.

6. Press the **<SEL/CANC>** key; ***ALARM*** will appear on the display. Refer to the Set Up Form for Vocabularies - Alarm. Press the **<ENTER>** key and proceed to train your BUTLER's Alarm Vocabulary by saying each word after it appears on the display. When ***SAY PASSWORD*** appears, you may say any word, phrase or sound you choose: a whistle, the words "It's me," or any imaginative words you wish. You must carefully remember the word(s) or sound you enter here; you will need to repeat it exactly as you entered it to properly identify yourself when you enter your home and want to deactivate the Intrusion Detection System.
7. Proceed to teach your BUTLER the rest of the vocabulary sections following the above procedures.

NOTE: In the Devices Vocabulary the first 3 positions are reserved for **NO**, **ALARM** and **TELEPHONE**. The fourth position is for Device #1, the fifth for Device #2, and so forth. You will set up this vocabulary just as you did the others. First your BUTLER will ask how many devices you have. For example, if you have set up only a lamp, a TV and a radio, when ***DEVICES:*** appears on the display, you would enter the number 3. Now refer to the Set Up Form for Devices. When ***SAY DEVICE 1*** appears, say the name of the device you set up as Device #1. If you set up a lamp as Device #1, you would say **"Table lamp."**

8. These same procedures will hold true for the Telephone Vocabulary section. When ***NAMES:*** appears on the display, your BUTLER is asking how many names you wish to enter, or store in the system. Each User may enter 16 names. The names will have their respective telephone numbers entered (see Section 9.6, Setting Up Telephone). If you want to enter only 4 names now, enter the number 4. You may add other names and respective numbers later (see Section 10.11, Change A Word); remember to update your Set Up Form for Telephone Vocabulary accordingly.

Once you have finished teaching your BUTLER all the vocabulary sections, you are ready to verify that he has learned them properly. Proceed to Section 10.8, Check and Learn.

10.8 CHECK AND LEARN (Required)

In this section you will verify that your BUTLER has learned the words you taught him in the preceding section. It is also possible here for you to instruct him to improve his learning, or his recognition, of any particular word you have taught him. There is no real right or wrong way to do this. It's something that you will get a feel for by experimentation.

In this **Check And Learn Section** we will be using the Alpha Select keys **YES**, **NO** and **UPDATE** in the upper right-hand corner of the keyboard (see Figure 6-2). We will ask your BUTLER to identify on the display the various words you have taught him. When ***SAY WORD NOW*** appears on the display, you will say one of those words. If he learned properly, the correct word will be displayed and you will press the **<YES>** key. If an incorrect word is displayed, you will press the **<NO>** key; ***NO UPDATE*** will appear, followed by ***SAY WORD NOW***. Repeating the procedure, say the word until it appears on the display. Then press the **<UPDATE>** key, which means it was the correct word but you want your BUTLER to improve his learning of it. ***UPDATING...*** will appear; he is recording in the system the word as you last spoke it.

EXAMPLE: If you said "On" in the Commands Vocabulary and your BUTLER missed it the first 2 times but got it on the third attempt, then you would press the **<UPDATE>** key so that he will learn "On" better. If he got a word correctly the first time or got it 4 out of 5 times, you would press the **<YES>** key as there would be no need to improve his learning of that word.

This will be one of the most often used parts of your system, because as you become more familiar with your BUTLER, you will speak more naturally to him. It will likely be necessary to retrain him over the first few weeks as you become more acquainted with him and he with you. The following are detailed instructions for the **Check and Learn Section**:

1. With ***OPERATIONS*** on the display, press the **<SEL/CANC>** key until ***LEARNING SECTION*** appears; press the **<ENTER>** key.
2. ***TRAIN SECTION*** is on the display; press the **<ENTER>** key.
3. ***CHECK & LEARN*** now appears; press the **<ENTER>** key.
4. ***USER 1*** appears; using the **<SEL/CANC>** key, select your proper User number, then press the **<ENTER>** key.
5. ***COMMANDS*** is now on the display; this is the Commands Vocabulary section. Press the **<ENTER>** key.

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6. The display shows ***SAY WORD NOW!***. Say any word you choose from the Commands Section. In this case, say "Godfrey." ***ENTRY ?*** should appear on the display. (Your BUTLER's name will appear as ***ENTRY*** when his recognition of his name is correct; other commands he recognizes will appear as the command word itself.) If so, press the <YES> key and ***NO UPDATE*** will be displayed. Then ***SAY WORD NOW*** will reappear on the display; say another word. If an incorrect word appears, press the <NO> key. ***NO UPDATE*** should appear again on the display, and you say "Godfrey" again. If the display shows the correct word this time, press the <UPDATE> key, which instructs your BUTLER to immediately relearn that word. ***UPDATING...*** will appear on the display, which means your BUTLER is recording in his recognition system the word as you just spoke it. Now select another command word and continue the procedure until you have verified that he has properly learned all words in this vocabulary section.

NOTE: If your BUTLER has difficulty identifying any particular word after you have said it a few times, or if he recognizes it only every second or third time you say it, be sure to **update** that word. As you see, you are both checking the words BUTLER already knows and instructing him to improve his learning of the words he's having trouble with. Once you are convinced that he has properly learned the Commands Vocabulary, press the <MENU> key and the display will show ***CHECK & LEARN*** again. You may now go to any of the other vocabulary sections and **Check and Learn** in them.

10.9 SET CHECK AND LEARN (Optional)

This section allows you to choose an alternate way to verify and update words you have taught your BUTLER. Instead of using the keyboard to instruct **NO**, **YES** and **UPDATE**, in this section you may choose to instruct by VOICE. This VOICE option is for experienced Users only, and it requires absolute silence in the room throughout the procedure.

1. With ***OPERATIONS*** on the display, press the <SEL/CANC> key. ***LEARNING SECTION*** will appear; press the <ENTER> key.
2. ***TRAIN SECTION*** will appear. Press the <SEL/CANC> key and ***SET UP SECTION*** will appear; press the <ENTER> key.
3. ***SPEAKER ADAPTION*** will appear. Press the <SEL/CANC> key until ***SET CHECK & LEARN*** appears; press the <ENTER> key.

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4. ***UPDATE BY VOICE?*** now appears. If this is your choice of method for checking your BUTLER's learning, press the **<ENTER>** key. If you decide not to use this method, press the **<SEL/CANC>** key and ***UPDATE BY KEYBD?*** will appear; press the **<ENTER>** key. Either choice returns you to the top of the Set Up Section menu, with ***SPEAKER ADAPTION*** appearing on the display. To proceed with the VOICE checking method, follow Step 5.
5. Now you will follow Steps 1 through 6 of **Check and Learn**, Section 10.8, with the following exceptions in Step 6: Instead of using the keyboard to instruct **NO** or **YES**, you will say the words "No" or "Yes" at the appropriate times. Instead of pressing the **<UPDATE>** key to instruct your BUTLER to improve his learning of any word, when your word finally appears correctly on the display, you will REMAIN COMPLETELY SILENT. After 1 or 2 seconds, ***UPDATING...*** will appear on the display; your word as you last spoke it is being recorded in your BUTLER's recognition system.

REMINDER: This method of verifying and updating words is for experienced Users only and **COMPLETE SILENCE** in the room during the procedure is essential.

NOTE: This is a reminder not to fight with your BUTLER. He simply has trouble with some words and you must understand that at the outset. For example, in the Commands Vocabulary we used the words "on" and "off, please." This is because BUTLER may have trouble recognizing the difference between the words "on" and "off." To him, these words are too close in sound to differentiate accurately every time. However, if you say "on" and "off, PLEASE," he rarely makes a mistake. As you set up your vocabularies, be alert to similarly confusing sounding words. You may need to slightly modify your original words so your BUTLER will more quickly recognize them. If he has considerable difficulty recognizing any word, rather than continuing to try to teach him that word, select a new one and retrain him. Retraining will be covered in Section 10.11, Change a Word.

Your **ENTRY** word only has a focus setting 50% higher than all other words in the system. As a result, you may need to update your **ENTRY** word several times. See **"SET FOCUS"** on Page 10-5 and Section 10.4 for explanation.

10.10 DIALOG CHECK (Optional)

With only one exception, the process for checking dialog is the same as that for using Voice Control. The only difference is that in Dialog Check, lights and appliances will not actually turn ON and OFF while you go through the process of talking to and receiving responses from your BUTLER. For instance, when you give him the series of

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commands "Godfrey/table lamp/on," the lamp will NOT turn ON, but those words will appear on the display to let you know the recognition system is working properly. The one device that is an exception to this is the alarm. The alarm will be activated by checking it in Dialog Check, so if you wish to check it, be certain to deactivate it afterwards. As this is the only difference between the procedure for Dialog Check and for Voice Control Check, the detailed explanation will be covered only once; please refer to the step-by-step instructions in Section 11.1., Voice Control.

10.11 USER CHECK (Optional)

IF YOU'RE GOING TO USE YOUR BUTLER AS A "MULTI-USER" SYSTEM, MEANING THAT MORE THAN 1 PERSON AT A TIME WILL BE OPERATING HIM, THIS SECTION IS PERTINENT. You must be sure that each User is properly identified by your BUTLER so he will not confuse one person's words with another's words. This is done in the **User Check Section**. After every User has completed the training procedures in preceding sections, go into the **User Check Section** and follow these steps:

1. With ***OPERATIONS*** on the display, press the <SEL/CANC> key until ***LEARNING SECTION*** appears; press the <ENTER> key.
2. ***TRAIN SECTION*** now appears; press the <ENTER> key.
3. Press the <SEL/CANC> key until ***USER CHECK*** appears; press the <ENTER> key.
4. ***SAY WORD NOW!*** will appear. At this point, any one of the Users who have trained the system would call out the BUTLER's name in a loud clear voice. Once the name has been called, that particular User's number should appear on the display for approximately 1 second; then ***SAY WORD NOW!*** will appear again. The next User should identify himself by calling out the name he has given the BUTLER, and so forth.

If your BUTLER incorrectly selects the User, you may need to go into the **Change Word Section** and change his name (or names; see the boxed note on Page 10-10). You could also go into the **Check and Learn Section** and retrain or improve your BUTLER's recognition of the name you're calling him. The greater difference there is in the names each User teaches the BUTLER, the better the success will be in the **User Check Section**. It is most important that in this section your BUTLER properly selects the correct User every time, as this will affect his ability to properly recognize the other words you have taught him in other parts of the system.

10.12 CHANGE A WORD (Optional)

When you change or ADD words to your system, position yourself about 5 feet from your unit, facing it; speak clearly, loudly and normally.

1. With ***OPERATIONS*** on the display, press the <SEL/CANC> key until ***LEARNING SECTION*** appears; press the <ENTER> key.

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2. ***TRAIN SECTION*** is on the display; press the **<ENTER>** key.
3. Press the **<SEL/CANC>** key until ***CHANGE A WORD*** appears; then press the **<ENTER>** key. Next, follow User number entry procedure (see **EXAMPLE**, top of Page 10-5).
4. ***COMMANDS*** now appears. Press the **<SEL/CANC>** key to scroll through the menu until you come to the vocabulary section in which you wish to change or add a word.

EXAMPLE: If you wish to change the Password in the Alarm Vocabulary, press the **<SEL/CANC>** key until ***ALARM*** appears on the display. When you see ***ALARM***, press the **<ENTER>** key; ***NO*** will appear. By pressing the **<SEL/CANC>** key you will see in turn each word in the vocabulary section. When you come to the word you wish to change, press the **<ENTER>** key; ***SAY WORD NOW*** will appear. Immediately say the word you want to **substitute** for the word already in the system. Your new word instantly replaces your original entry.

10.13 DELETE A WORD (Optional)

You may wish to delete a word from your system. For example, you may decide to let BUTLER's timer mechanism turn ON and OFF the coffee pot every morning instead of your original set up of this function by voice command.

The procedure to delete a word is very similar to the procedure for **Change A Word**. When you see the ***DELETE A WORD*** on the menu, press the **<ENTER>** key. Follow User number entry procedure, then press the **<SEL/CANC>** key to scroll through each vocabulary section. When you reach the section where you want to delete a word, press the **<ENTER>** key to enter that section. Using the **<SEL/CANC>** key scroll to the word

you wish to delete; then press the **<ENTER>** key. ***ARE YOU SURE?*** will appear on the display. If you are certain you want to delete the word, press the third Alpha Select key, then the **<Y>** key. Next press the **<ENTER>** key and that word will be instantly removed from your system's memory. If you reconsider and do not wish to delete the word, press the **<SEL/CANC>** key or the **<MENU>** key and the word will remain in the memory.

10.14 SETTING USER NAMES (Optional)

As described at the beginning of this section, each User is identified by a User code, or number. In the Voice Control mode of operation, ***USER 1*** will appear on the display if User 1 accesses the system, and the same principle applies to Users 2, 3 and 4. It is possible to change this identification code from a number to the User's name. For instance, instead of the panel displaying ***USER 1***, it could display ***HI JOHN***. This is more personal, and it makes identification of the User code that appears on the display easier at a distance. To make the change for each User, proceed with the following steps:

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1. With ***OPERATIONS*** on the display, press the **<SEL/CANC>** key until ***LEARNING SECTION*** appears; press the **<ENTER>** key.
2. ***TRAIN SECTION*** now appears. Press the **<SEL/CANC>** key until ***SET UP SECTION*** is on the display; press the **<ENTER>** key.
3. Press the **<SEL/CANC>** key until ***SET USER NAMES*** appears; press the **<ENTER>** key.
4. ***USER 1: USER 1*** is now displayed. Let's assume for our example that Users 1 and 2 will keep their number code; User 3 will change to a name. Since this is the display code User 1 wants, press the **<ENTER>** key to accept it.
5. ***USER 2: USER 2*** now appears. Again, this is correct, so press the **<ENTER>** key.
6. You will now see ***USER 3: USER 3***. Press the **<SEL/CANC>** key and ***USER 3: __*** will appear. You are now ready to spell the name of that User, using the Alpha Display section of the keyboard. See Section 12.3 for instructions.
7. Once the correct Alpha Display name appears, press the **<ENTER>** key to accept the new information. From now on that name will appear on the display when User 3 accesses the system in the Voice Control mode.

You have just completed the **LEARNING SECTION** of your BUTLER. If you have followed all procedures properly, you are ready to experience the exciting world of VOICE CONTROL.

SECTION 11
OPERATIONS

Contents

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11.1 VOICE CONTROL

This is the operating mode you will most often use, and that is why it is the top selection on the **Operations** menu. In this mode of operation you can, for instance, turn on or off a radio, brighten or dim a lamp, turn on or off the alarm, place a telephone call, turn everything off at once and tell your BUTLER what to do if he has made a mistake. To enter the Voice Control mode, follow these steps:

1. Press the **<MENU>** key once or twice until you see ***OPERATIONS*** on the display panel; press the **<ENTER>** key.
2. ***VOICE CONTROL*** now appears; press the **<ENTER>** key.
3. When you see the **current time** on the display, you have entered the Voice Control mode and your BUTLER is ready to accept your verbal commands. Get your Set Up Form and position yourself comfortably about 5 feet from your unit for your first operation in the Voice Control mode.

NOTE: In the Voice Control mode, your display panel will **blink or pulse slightly**. THIS IS A NORMAL PART OF THE VOICE RECOGNITION OPERATION; NOTHING IS WRONG WITH YOUR SYSTEM. Each time the display blinks or pulses, it has removed all sound or recognition it has heard as of that moment. An asterisk (*) will appear from time to time on the far right side of the display when the BUTLER hears a sound in the room. It is best to give a command right after a pulse, when the * is NOT on the display, especially if you are working in an extremely noisy environment. This asterisk means that too much noise has entered the system and BUTLER is in the process of trying to recognize what he has heard. Again, it is best to give your command when the asterisk is NOT displayed. If it appears, wait about 1 second; it should disappear.

NOTE: At any time you wish to exit this mode of operation, press the **<MENU>** key; ***OPERATIONS*** will appear on the display. Now you are at the top of the system's main menu, have exited the Voice Control mode of operation, and may use the **<SEL/CANC>** key to scroll through to any other part of the menu system you wish.

EXAMPLE: Let's assume you are having a large party and you think your BUTLER might become confused by the unusual noise level. Rather than turning BUTLER off, exit to ***OPERATIONS*** on the menu and your unit will be out of the Voice Control mode. When the party quiets down, you may reenter the Voice Control mode simply by pressing the **<ENTER>** key.

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In the Voice Control operating mode 3 steps are required from you in order for your BUTLER to respond to a command: speaking his name, telling him the device you want him to operate, and then giving him the appropriate command to operate the device. For our step-by-step example, we shall assume you are User 1, your BUTLER's name is "Godfrey" and you want him to turn on and dim a lamp.

1. In a loud, clear natural voice, as if you were calling across the room to a person who is slightly hard of hearing, say "Godfrey."
2. Because you are User 1, the display will show *USER 1*.
3. Your BUTLER will reply, saying something like "Hello" or "May I help you?" and *DEVICE:* will be displayed.
4. As soon as your BUTLER speaks, you have only 1 1/2 seconds to tell him which device you want him to operate. You want him to turn on and dim a lamp, so immediately say in the same clear, loud normal-sounding voice "Table lamp."
5. You have set up the lamp and recorded it on your Set Up Form as Device 1; therefore, the display will show *DEVICE 1*.
6. Now you should hear your BUTLER respond with words such as "OK" or "Right away," and *COMMAND:* will be displayed.
7. As soon as he speaks, you have only 1 1/2 seconds to give him a command. You want the lamp to come on and be dimmed, so say "Dim," and *DIM* will be displayed.
8. If you followed all the above steps properly, at this point the lamp which you set up as Device 1 should simultaneously come on and be dimmed to the level of brightness you previously set up in the Dim Factor part of Section 9.

NOTE: If you had wanted the lamp to be turned on but **not** dimmed, your command would have been "On" instead of "Dim." If later you want the lamp, which is on at full intensity, to be dimmed, you would repeat Steps 1 through 6 above, give the command "Dim" and your BUTLER will dim the lamp. If still later you want the lamp to be at full intensity again, you would repeat Steps 1 through 6 above, give the command "Bright" and your BUTLER will turn it on to full intensity.

The commands procedure is not difficult, but it does take some time to become accustomed to. Keep in mind that you must speak in a normal voice, loudly and clearly, and you must give your BUTLER commands within the 1 1/2 second time limit after he responds to you.

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NOTE: If you exceed the 1 1/2 second time limit, your BUTLER will "go back to sleep," and you must start the procedure over from Step 1. If he does not recognize a command you give him, he will say, "Please repeat." This will give you one chance to repeat that command without having to start over. This will be explained in detail later in this section.

Keeping the above example in mind, we will now proceed with instructions for turning on a radio instead of a lamp.

1. Repeat Steps 1 through 3 in the preceding example.
2. As soon as your BUTLER responds to you, you have only 1 1/2 seconds to give him a command. You want him to operate the radio, so loudly and clearly say "Radio."
3. Your BUTLER will respond with words such as "OK" or "Right away."
4. Immediately after his response, say "On." If you performed all the steps properly, the radio should now be on.

NOTE: If you had told your BUTLER to "Dim" the radio and he recognized your command properly, still nothing would happen because your radio is set to an appliance module. Appliance modules do not respond to DIM, BRIGHT and LIGHTS ON commands.

If you wish to turn OFF either the radio or the lamp, follow the same procedures as above using the command "Off, please" in place of "On." If you want to turn both devices OFF at once or all devices OFF simultaneously, simply say "Good night." For example, giving the "Godfrey/Radio/Good night" commands in order will turn OFF the radio plus all other devices set up with lamp or appliance modules as established in Section 9.8, Setting House Codes. **Devices set up with timers won't be affected by this command.** When the GOOD NIGHT or ALL-OFF command is given, your BUTLER will begin turning off all lamps and appliances that you have set up on all house codes in the Set House Code Section of your unit. Any house codes you have told him to ignore in the Set House Code Section will not be turned off. They may be turned off by voice control individually, by the timers or by manual control (see Section 9.8). This ALL-OFF command could require up to 30 seconds before the next command may be given. It takes approximately 2 seconds per House Code and there are up to 16 house codes to which you could give the ALL-OFF or GOOD NIGHT command.

If at any time your BUTLER incorrectly recognizes your command and selects a wrong response, you may cancel it simply by saying "No." For instance, you may have said "Radio" and he recognized the word as "Table lamp"; when *DEVICE 1* appears on the display (because you set up Device 1 as a lamp), say "No" and that will cancel the incorrectly

* * * * * OPERATIONS

recognized command. Then repeat your original command. When you use the word "No" in any of the vocabulary sections of your system (all listed on your Set Up Form), the system automatically puts you back in the Commands Section with the opportunity to give the correct command again.

11.1.1 ALARM

The same basic method for operating a lamp or radio is used to operate the Alarm System. Just substitute the word "Alarm" for radio or lamp and follow the procedure above. After you've given the command "On" and your BUTLER responds, the letter A will appear on the display in the space after the current time. You now have 60 seconds (or whatever time you established in your Set Up Alarm Section) to leave the room so the infrared zone sensor will not detect you and demand your identification. To turn the system off, say "Godfrey"; wait for his response; then say "Alarm" and again wait for his response; then say your PASSWORD. If you have forgotten the password you entered into the system, refer to your Set Up Form for the Alarm Vocabulary. See Section 12.2, Setting Up Alarm, for detailed instructions.

11.1.2 RECEIVING/PLACING PHONE CALLS

Answering or placing a telephone call is slightly different. However, the necessity of speaking in a loud, clear normal-sounding voice and heeding the 1 1/2 second time limit for your command after your BUTLER responds to you apply to the following procedure for commanding him to answer the telephone.

1. Say "Godfrey" and wait for your BUTLER's response.
2. Immediately after he responds, say "Telephone"; wait for his next response.
3. Immediately after that response, say "OK," and instantly your BUTLER will open the phone line. When the line is open, even if the telephone jack is not plugged in, a T will appear on the display in the space after the current time. After 1 1/2 seconds, you may start talking to the caller and converse as long as you wish. When the caller hangs up, your system will automatically disconnect the circuit without your giving any command to do so.

NOTE: If you wish to end the call before the other party hangs up, repeat Steps 1 through 3 and your BUTLER will disconnect the circuit. For instance, you may have been put on "hold" and don't want to continue waiting for the party to answer; give the commands in Steps 1 through 3 and your BUTLER will end the call for you.

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For placing a telephone call using one of your stored telephone numbers, you would follow the above procedure except that instead of saying "OK," you would say the **name of the person** you want to call. For example, if you wish to have your BUTLER place a call to your mother, whom you entered as "Mom" and listed as Name 2 in the Telephone Vocabulary section, you would now say "Mom." If your BUTLER has recognized your word correctly, *NAME 2* will appear on the display panel. If it does, then say "OK"; the system will automatically dial your mother's number. If your BUTLER didn't correctly recognize your word and selected another name, simply say "No" when you see the incorrect Name # on the display. He will then respond and allow you to repeat the original name. If his recognition is correct this time, then give him the command "OK."

NOTE: If you say "No" two consecutive times after any command, your system will automatically erase your last two commands. For example, if after you gave the series of commands, "Godfrey/Telephone/Mom," you remembered your mother was visiting friends and you decided to listen to the radio, you could say "No" twice; you would automatically return to your device command point and now you could say "Radio," then proceed with the "On" command.

In the Voice Control mode the words TELEPHONE, ALARM and NO are factory set and thus will appear on the display panel as you give the command for each. A lamp, radio or any of the other 32 devices you may set up for Voice Control operation will not automatically appear on the display when you say the word. Instead, when you say "table lamp" or "radio" or the name of any other established device, the device number, 1 through 32, you assigned it when you set it up will appear on the display. The reason for this is that when you bring your BUTLER home, he knows what TELEPHONE, ALARM and NO are. He does not know that Device #1 is table lamp; it could be the TV or any other appliance you may choose. If you would like to see the words RADIO, TABLE LAMP, TV, etc., appear on the display when you ask your BUTLER to operate them, refer to Section 12.3, Setting Up Alpha Displays; it will explain how to set up the correct text for the Telephone and Device Sections.

NOTE: If both an A and a T appear on the display in the space after the current time, it means that your alarm is activated and your telephone line is open.

11.2 MANUAL CONTROL

Your BUTLER's Manual Control mode of operation enables you to control your lamps and appliances by push button command. This mode is useful if you wish to operate a lamp or appliance other than the 32 that are controlled by voice command or if you wish to override the Voice Control features of this system. A total of 256 units may be accessed manually. The ALARM may also be turned on using Manual Control.

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In this mode of operation the second level of commands on your keyboard will be used. The number keys 1, 2, 3, 6, 7 and 8 will now take alternate keyboard functions (see Section 6.2).

1. Starting with *OPERATIONS* displayed on the panel, press the <ENTER> key until *VOICE CONTROL* appears.
2. Press the <SEL/CANC> key until *MANUAL CONTROL* appears on the display.
3. Press the <ENTER> key; you will now see *DEVICE #*.
4. Press the appropriate device number, 1 through 64, of the device you want to operate.

EXAMPLE: If you wish to turn on the lamp that is set up as Device 1, you would press the <1> key and then press the <ENTER> key. Once you have done this, skip to Step 7. If you do not wish to operate one of the 32 devices selected for Voice Control or the 32 selected for Timer Control but would like to operate another of the 256 total codes available, follow Steps 5 and 6.

5. If no number was selected after *DEVICE #* appeared on the display, press the <ENTER> key; *HOUSE CODE* will appear.
6. Press the appropriate numbers to equal the House Code setting; A=1 through P=16 in consecutive order.

EXAMPLE: If you want to turn on the lamp, Device 1, House Code A, Unit 1, you would press the number <1> key, then the <ENTER> key.

7. You will now see *UNIT CODE* on the display. Select the appropriate number from 1-16 that corresponds to the Unit Code for the module you wish to activate. In the example above, House Code A1, you would press the <1> key and then the <ENTER> key.
8. After you have entered your House Code and Unit Code setting for the module you wish to activate, *COMMAND* will appear on the display. Press the appropriate command key --BRIGHT, ON, ALL-ON, DIM, OFF, or ALL-OFF -- and the device or House and Unit Codes that you entered will immediately respond.

NOTE: All six of these commands apply to devices set up with lamp modules. The BRIGHT, DIM and ALL-ON commands will have no effect on devices set up with appliance modules.

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- a. **BRIGHT** - This command will brighten a lamp module that has been dimmed previously by Voice Control, Manual Control or Timer Control. When the **"Bright"** key is pressed, the lamp module will brighten to its fullest intensity possible.
- b. **ON** - This command will turn **ON** any device set up with either a lamp module or an appliance module. If you wish to turn on a radio, for example, you would press the **<ON>** key, which will send the **ON** command to the House Code and Unit Code you have selected.
- c. **ALL-ON** - This command will activate all lights set up with lamp modules in your home; it applies to all lights on the House Code you selected, without regard to whatever Unit Code you may have selected.
- d. **DIM** - This command applies only to lights set up with lamp modules. When you select this command, your BUTLER will dim the lamp to your predetermined preference. (Dimming is covered in detail in Section 9.5.)
- e. **OFF** - When this command is used, BUTLER will turn **OFF** the lamp or appliance module with the House Code and Unit Code you selected.
- f. **ALL-OFF** - This command will simultaneously turn **OFF** all lamps and appliances on the House Code you selected. It is equivalent to the **ALL-OFF** or **GOOD NIGHT** voice command given in the Voice Control mode of operation.

NOTE: The Manual Control mode of operation has a built-in keyboard memory. For example, if you have just activated House Code G, Unit 17 with the command **ON** and now you wish to activate that same House Code and Unit Code with an **OFF** command, when the House code is asked for, you would merely press the **<ENTER>** key twice; when ***COMMAND:*** appears on the display panel, press the **<OFF>** key

MANUAL ALARM CONTROL:

The alarm system may be turned on manually by performing the following steps:

1. With ***DEVICE #:*** on the display, press the first Alpha Select key (marked **YES**).

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2. Press the letter "A" key, then the <ENTER> key.

Your system will immediately go into Voice Control and will now function as if activated by voice. (See Section 12.2)

**NOTE: THE ALARM MAY NOT BE TURNED OFF IN MANUAL CONTROL.
REFER TO SECTION 12.2 FOR RESET INFORMATION.**

11.3 PHONE DIALER

BUTLER-IN-A-BOX, in addition to having the ability to place and receive phone calls in the Voice Control mode, also has a manual phone dialer available to you. To use this feature, proceed with the following steps:

1. Press the <MENU> key until *OPERATIONS* appears on the display panel; press the <ENTER> key.
2. You will now see *VOICE CONTROL*. Press the <SEL/CANC> key until *PHONE DIALER* appears, then press the <ENTER> key.
3. You will now see ** on the display. Press the number keys that correspond to the telephone number you want to dial, just as you would on a regular touch tone telephone. The difference is that the number will not be dialed until you press the <ENTER> key. If you accidentally press a wrong number key, simply press the <SEL/CANC> key and then press the correct number key. When the correct telephone number appears on the display panel, press the <ENTER> key and your BUTLER will dial the number for you. At this time you may close the keyboard door and wait for the person you called to answer. At the end of your conversation, BUTLER will automatically hang up when he hears a dial tone.

NOTE: If you wish to exit this Manual Control phone dial section and enter the Voice Control mode, press the <MENU> key. Then press the <ENTER> key so that the current time of day is displayed. You are now in Voice Control operation and your telephone system will operate as usual. Pressing the <MENU> key a second time will hang up the phone and disconnect the call.

SECTION 12
SPECIAL OPTIONS

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12.1 SETTING UP TIMERS

This section will explain the step-by-step procedure for using your BUTLER's **SMART CLOCK** feature.

This unique **SMART CLOCK** contains 32 timers that enable you to control **any 32 of the 64 devices on the Device Set Up Form**. Timer #32 has been reserved as your morning wake-up timer. When this timer is activated, your BUTLER will say **"Good morning"** and other phrases in addition to activating whichever device (a radio, for example) you have selected. He will continue this at intervals of about every 20 seconds until you give him the series of commands, waiting between each command for his response, **"Butler"** (whatever name you have given him)/ **"Alarm/Off, please."** In other words, Timer #32 not only will activate the device, but your BUTLER will respond verbally as well. Or, the verbal response capability could be used alone so that BUTLER will only speak to you and not activate any device at all. For example, to remind you to take your medication.

Each timer has its own individual **Start Date, Stop Date, On-Time, Off-Time** and **days, Sunday through Saturday**, in which to function.

EXAMPLE: We will set up Timer #12. The **Start Date** (the first date the timer is activated) will be April 10; the **Stop Date** (the last date the timer will be activated) will be July 31, and between those dates we will have the **radio** (Device #2 on your Set Up Form), turn **ON** at 7:00 a.m. and turn **OFF** at 8:30 a.m. **Monday through Friday only, not Saturday and Sunday.**

NOTE: When a timer is given a **Start Date**, it will become active at 12:00 a.m. on that date, and it will remain functional until 12:00 midnight on the **Stop Date**. Using our example time period ending July 31, we would use August 1 as the **Stop Date** so the timer would be active until midnight July 31.

As you can tell by now, this is probably the most sophisticated timer mechanism you have ever dealt with. Because of **SMART CLOCK's** flexibility, many combinations are possible. For example, you can have timers with **ON** times greater than **OFF** times, or with **OFF** times nonexistent. **ON** times and **Stop Dates** can be completely nonexistent too. These timers can be used in combination to achieve various effects, such as random timing for lighting systems to make your home look "lived-in" when you're not there. They can intermittently interrupt each other for some temporary purpose. For example, if you're going away for a few days and don't want to reset the main heating timer, you may use another timer to override it on a temporary basis. We advise some experimentation with these timers because their energy management potential alone could save you hundreds of dollars a year!

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Use the following steps to set up our example and all other timers you wish to activate:

1. Begin by pressing the <MENU> key until ***OPERATIONS*** appears on the display; then press the <SEL/CANC> key until you see ***SPECIAL OPTIONS***. Press the <ENTER> key.
2. ***SET UP TIMERS*** now appears; press the <ENTER> key.
3. You will now see ***TIMER #?***. BUTLER is asking which timer number (1 through 32) you wish to use. For our example use Timer #32; press the <1> and the <2> keys, then the <ENTER> key.
4. ***EMPTY*** on the display tells you that this timer is not currently in use. To activate it press the <SEL/CANC> key. You will now see ***IN USE***; press the <ENTER> key. This timer is now active.
5. On your display will be ***TURN ON***. This gives you the option to have your appliance or lamp turned ON by the timer. Our example calls for a radio to be activated by Timer #12, so press the <ENTER> key.

NOTE: At this point, if you had chosen a lamp to be activated, you also could have chosen to have it DIM or BRIGHT, ACTIVATE and ALL ON/OFF may also be selected, or ALARM (for use as a time lock). When ***TURN ON*** is on the display, if you press the <SEL/CANC> key, ***DIM (LAMP ONLY)*** will appear. To have your lamp turn ON and DIM, you would press the <ENTER> key.

6. You will see ***START MONTH?***. BUTLER is requesting the month, 1 through 12, you want this timer to start functioning. April is the 4th month of the calendar year, so press the <4> key, then the <ENTER> key.

NOTE: If no Start Date is selected and only the ENTER key is pressed, the current system date (today's date) will automatically become the start month and date. If you use the letter keys and manually enter today's date, the timer will become active ONE YEAR FROM TODAY.

7. ***START DATE?*** now appears on the display panel. This is the day of the month you wish the timer to start functioning. For our example, April 10, you would press <1> and <0> for the number 10. Then press the <ENTER> key.
8. Now the display shows ***STOP MONTH?*** or the month when you want the timer to stop working. For July 31 to be the last day the timer will perform as you selected, August 1 will be the Stop Date. August is the 8th month of the calendar year, so press the <8> key, then the <ENTER> key.

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NOTE: THE STOP TIME FOR A TIMER IS ONE DAY AFTER THE LAST DAY
YOU WANT THE TIMER TO BE ACTIVE. (JULY 31 ENDS AUGUST 1.)

9. The display now shows ***STOP DATE?***, the **date** of the month you wish the timer to **stop** functioning. August 1 is the stop date of our example; so press the <1> key, then the <ENTER> key.

At this point, we have established that Timer #12 will **start** on April 10 and **stop** on August 1.

10. The display shows ***ON HOUR?***. Your BUTLER is requesting the **hour** of the day you want the timer to **start**. For 7:00 a.m., press the <7> key and then the <ENTER> key.

11. Now you see ***7 AM?***. You want that morning (AM) hour, so press the <ENTER> key.

When ***7 AM?*** appears on the display, you also could opt for 7:00 p.m. You would press the <SEL/CANC> key and ***7 PM?*** would appear; you would press the <ENTER> key to have your unit accept that p.m. selection. Each time you press the <SEL/CANC> key, BUTLER will switch back and forth between 7:00 a.m. and 7:00 p.m. to enable you to choose the a.m. or p.m. settings for the timers. All timers work this way.

12. The display shows ***ON MINUTES?***, or, the **minutes** of the day you want the radio to turn **ON**. Our example is 7:00 a.m. exactly, so there are no minutes; simply press the <ENTER> key.

13. On your display panel is ***OFF HOUR?***, or, what **hour** of the day do you want your timer to turn **OFF** the device it is activating? For our 8:30 a.m. example, the hour would be 8. Press the <8> key and then the <ENTER> key.

14. The display now shows ***8 AM?***. (As explained above, you may switch between 8:00 a.m. and 8:00 p.m. by pressing the <SEL/CANC> key.) Our example is 8:30 a.m., so press the <ENTER> key.

15. ***OFF MINUTES?*** now appears. These are the **minutes** of the day you wish the timer to **deactivate**. For 8:30 a.m., press the <3> and <0> keys, then the <ENTER> key.

16. Now ***DEVICE #?*** is displayed. On your Set Up Form you have 64 devices from which to choose. For our example we are using Device #2, which we have established on the form as **radio**. Press the <2> key, then the <ENTER> key. By making this choice you have told the timer, so far, that **Device #2**

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(radio) is to start April 10, stop August 1, turn ON at 7:00 a.m., and turn OFF at 8:30 a.m. Now we will select the days of the week you want all of this to happen.

17. The display shows ***SUNDAY NO?***. Your BUTLER is asking if you want this timer to function on Sunday. By pressing the **<SEL/CANC>** key, you may switch back and forth between ***SUNDAY NO?*** and ***SUNDAY YES?***. Our example is for Monday through Friday only, and not Saturday and Sunday. To skip Sunday, press the **<ENTER>** key when ***SUNDAY NO?*** is displayed.
18. Next comes ***MONDAY NO?***. Since Monday is a day we want the timer to operate, press the **<SEL/CANC>** key and ***MONDAY YES?*** will appear. Then press the **<ENTER>** key. This same procedure applies to Tuesday, Wednesday, Thursday and Friday. In each case, press the **<SEL/CANC>** key to display the day with a YES setting, then press the **<ENTER>** key.
19. When the display shows ***SATURDAY NO?***, since Saturday is not one of the days we wish this timer to activate, press the **<ENTER>** key. With this step, you have completed setting up Timer #32 with all the proper settings according to our example. All of the remaining timers, 1 through 32, are set up the same way.

Each of the timers, once set up, may be reviewed without disturbing any of the settings you have established. You may, however, change any setting you wish during the review process. To demonstrate this we will now review Timer #12:

1. The display panel shows ***TIMER NO.?***. Press the **<3>** key and the **<1>** key, then the **<ENTER>** key; ***IN USE*** will appear.
2. Press the **<ENTER>** key again and you will see ***TURN ON***. This means the timer is to turn ON a lamp or appliance.
3. Each time the **<ENTER>** key is pressed, the display will show the selection you made for each of the choices available for the timer you are reviewing. To change the information as it is displayed, press the **<SEL/CANC>** key.

EXAMPLE: If you want to change the ON hour from 7:00 a.m. to 8:00 p.m., press the **<ENTER>** key until ***ON HOUR*** appears on the display. Press the **<SEL/CANC>** key to cancel your original entry, then enter your new choice following the steps above. In this way you may change an ON or OFF time, an ON day or OFF day, etc. simply by going to the pertinent portion of the timer section and changing whatever you wish. All timers work in a similar manner.

12.2 SETTING UP ALARM

This section will explain in detail the procedure for setting up BUTLER's Intrusion Detection System for your home.

1. Begin by pressing the <MENU> key until ***OPERATIONS*** is displayed on the panel, then press the <SEL/CANC> key until you see ***SPECIAL OPTIONS***; press the <ENTER> Key.
2. Press the <SEL/CANC> key until ***SET UP ALARM*** appears, then press the <ENTER> key.
3. You will now see ***SILENT ALARM NO***. Your BUTLER is asking whether you want this to be a **silent** alarm or not silent alarm. For purposes of our example, it is not to be a silent alarm, so press the <ENTER> key.

NOTE: If you wanted this to be a silent alarm, you would press the <SEL/CANC> key until ***SILENT ALARM YES*** appeared. Then you would press the <ENTER> key.

4. You will now see ***ALL LIGHTS PULSE***. By DEFAULT setting, when the alarm is activated, all lights in the system will come on and **blink on and off** (pulse) as an alert to you and to neighbors that something is wrong in your home. If you want this to happen, press the <ENTER> key. You have other options, too, if you don't want that effect. Press the <SEL/CANC> key until ***ALL LIGHTS ON*** is displayed. This means all lights in your home would **come on and stay on without blinking**; if this is your choice, then press the <ENTER> key. Your third option is not to have any of the lights come on or change from their current position when the alarm system is activated. If this is your choice, press <SEL/CANC> key until ***ALL LIGHTS NONE*** appears; then press the <ENTER> key.
5. Next you will see ***1. DEVICE PULSE***. This means that the first Alarm Device has been DEFAULT set to pulse when it is activated. If this is what you wish, press the <ENTER> key. If you chose a bell to be set up as your first device to be activated in the alarm mode, the pulsing effect would not apply; so you would press the <ENTER> key to have the bell turn **ON** and stay on when the alarm system is activated. Your third option is not to have a device activated at all. Press the <SEL/CANC> key until ***1. DEVICE NONE*** appears, then press the <ENTER> key.

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6. ***1.DEVICE #1*** appears. Your BUTLER is telling you that Device #1 on your Set Up Form will be activated as Alarm Device #1 and it is DEFAULT set to pulse. However, you may choose any one of the 64 devices on your Set Up Form. For our example, we will choose Device #7 as Alarm Device #1. Press the **<SEL/CANC>** key, then the **<7>** key, then the **<ENTER>** key. Alarm Device #2 and Alarm Device #3 will be activated the same way. If you don't want to set up Alarm Device #1, press the **<SEL/CANC>** key until ***1.DEVICE NONE*** appears, then press the **<ENTER>** key. If you want to skip Alarm Device #2 or Alarm Device #3, follow that same procedure as each Device # is displayed.
7. ***DURATION 5*** will appear. The DEFAULT duration for your alarm system to be activated is approximately 5 minutes. An activated alarm system will blink or pulse lights, ring bells, or whatever you set up in your 3 Alarm Devices above for any specified duration between 1 and 255 minutes. It will then shut off and reset itself for the next intrusion. In this case, instead of the DEFAULT let's use 7 minutes; press the **<7>** key, then the **<ENTER>** key.

NOTE: In most residential communities local governments set a maximum of 10 minutes for an alarm system to be activated. We suggest you check with your local authorities before exceeding that time limit.

8. You will now see ***DELAY TIME 60***. Your unit has been DEFAULT set at approximately 60 seconds delay between turning ON your BUTLER's Intrusion Detection System and your departure, and between your reentry and the alarm system's activation. This delay time is approximately the same for both entry and exit. If this is sufficient time, press the **<ENTER>** key. However, you may choose from 1 to 99 seconds as the approximate delay time. We recommend at least 15 to 20 seconds so you may activate the system properly in the event of an improper password or your BUTLER's nonrecognition of the password. In this example we will use 30 seconds delay. Press the **<SEL/CANC>** key, then **<3>** key, then the **<0>** key; press the **<ENTER>** key.

NOTE: If the room is noisy, the activation time could be longer than it's set for. If an asterisk (*) appears on the display, your BUTLER is hearing sounds that will slow down the activation process.

9. ***SAFETY LIGHT NO*** now appears on the display. Your BUTLER is asking if, upon your entry into your home, he should turn on a safety light so you may see to move around before the alarm system is deactivated. If you do not want a light turned on, press the **<ENTER>** key. If you do want a safety light, press the **<SEL/CANC>** key until ***SAFETY LIGHT YES*** appears on the display; then press the **<ENTER>** key.

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10. Now you will see ***DEVICE NO.?**. Your BUTLER is asking which device you wish to activate as a safety light. Aside from a light, a video camera or other device may also be activated at this time. This is an "instant-on" situation and may be used for many purposes other than turning on a safety light. Remember, this does **NOT** activate the Intrusion Detection System, but rather **reminds** you that the system has been activated and will **NOT** go off after the delay time has been reached. In this case, we will select Device #1, lamp. Press the <1> key, then the <ENTER> key. Your Intrusion Detection System is now set up and ready for use in the Voice Control mode of operation.

Once in the Voice Control mode of operation, turning your Intrusion Detection System either **ON** or **OFF** is a three-step command/response procedure. Full details are covered in Section 11.1.1, but in brief, the procedure is as follows:

ON - (1) Say your BUTLER's **name**. (2) After his response, you say "**Alarm.**" (3) After his response, you say "**On.**" Your alarm system is now **ON** and you have, in this case, 30 seconds to leave the house before it will activate.

OFF - When you reenter your home, you will have 30 seconds after BUTLER detects you to correctly complete the command/response series before your system goes into the alarm mode. (1) Say your BUTLER's **name**. (2) After his response, you say "**Alarm.**" (3) After his response, you say your **PASSWORD**.

NOTE: See Page 11-8 for manual operation of the alarm system.

NOTE: Once the Alarm System has been turned on, the keyboard will no longer operate UNTIL you have turned the alarm OFF and followed the reset procedure explained below.

RESET PROCEDURE: Once the Intrusion Detection System goes into the alarm mode, you are **NO LONGER IN THE VOICE CONTROL MODE OF OPERATION**. To **deactivate** the alarm after it has gone into the alarm mode or turn it off manually after it was turned on, remove the battery backup cover from the back of your unit. Using the eraser end of a pencil, press the **RESET** button on the inside back cover. After you've pressed the reset button the words ***ENTER P.I.N.:** will appear on the display. Before the alarm system will deactivate and reset itself, you must enter your P.I.N. (Product Identification Number) as described in Section 7.1. The alarm system will stop and reset itself **ONLY** after your P.I.N. has been entered. If the unit is unplugged from the wall at this point, all the final commands that were sent will remain. In other words, bells will continue to ring, lights will stay on, and

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anything else that has been set into motion will continue to do so until it has been manually reset. If the lights or bells were in the PULSE mode and the unit was unplugged from the wall, the pulsing would stop and lights would remain in the ON position.

NOTE: Lights that were on before Alarm Mode will be shut off using the ALL-OFF command, as set up in Section 9.8, Setting House Codes.

12.3 SETTING UP ALPHA DISPLAYS

As explained in Section 11.1, Voice Control, when you are in the Voice Control mode and tell your BUTLER to operate some device, such as a lamp, TV or telephone, only in the case of **TELEPHONE**, **ALARM** and **NO** will these words appear on the display panel. BUTLER comes with factory-set recognition of the words **TELEPHONE**, **ALARM** and **NO**. All other devices will appear on the display as the Device # you have set up for each because your system cannot automatically know what devices you have set up with specific device numbers. However, you can teach your BUTLER appropriate words for all of your devices so that these words instead of device numbers will be displayed when you give him the verbal command. We will now explain the procedure for changing the words that will appear on the display in the Telephone and Device Sections. In our example we will change Device 1 from "Device 1" to "Lamp" so that when you say "Lamp," you will see ***LAMP*** on the display.

1. Following the instructions in Section 9.4, Setting Up Devices, press the appropriate keys until ***IS: DEVICE 1*** appears on the display. This means that Device 1 will be displayed when you are in the Voice Control mode.
2. Press the <SEL/CANC> key until ***IS: *** appears. Your system is now ready to accept letters and numbers into this area. To spell the word LAMP, we will be using the Alpha Select keys in the top right-hand corner of the keyboard (see Figure 6-2). Press the third Alpha Select key (marked **UPDATE**). Next press the <5> key and ***L*** will appear on the display. ("L" is the third letter on Key 5, which corresponds to the position of the solid square on the third Alpha Select key. **These corresponding positions of the solid blue squares on the 3 Alpha Select keys and the letters on the 10 alpha-numeric keys apply throughout Alpha Display set up procedures.**) Now press the first Alpha Select key (marked **YES**). Then press the <2> key; ***A*** will appear on the display. Again press the first Alpha Select key, then the <6> key; ***M*** will appear. Press the first Alpha Select key once more, then the <7> key; ***P*** will appear. When all of the correct information has appeared on the display, press the <ENTER> key. From now on, when you give the voice command "Lamp," ***LAMP*** will appear on the display instead of ***DEVICE 1***.

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NOTE: Any time you make a mistake, simply press the <SEL/CANC> key and the display will go blank; then you may begin again. The procedure for changing information that appears on the display panel may be used for all of the first 32 devices on your Set Up Form and the 16 telephone numbers in the Store Phone Number Section.

NOTE: If you wish to use a space, you may do so by pressing the first Alpha Select key (marked **YES**), then the **0** for **Operator** key. For a left parenthesis, press the second Alpha Select key (marked **NO**), then the **0** for **Operator** key. For a right parenthesis, press the third Alpha Select key (marked **UPDATE**), then the **0** for **Operator** key.

We will now explain the steps for "naming" telephone numbers.

1. Following the instructions in Section 9.6.2., Storing Telephone Numbers, press the appropriate keys until ***IS: NAME# 1*** appears, then press the <SEL/CANC> key.
2. ***IS: *** now appears. You may use letters and numbers to enter your selection in this section. In this example we will enter the word "Police." Following the same procedure used above to spell "lamp," press the appropriate Alpha Select and alpha-numeric keys to spell "Police." When ***POLICE*** appears on the display, press the <ENTER> key. If you make a mistake and wish to begin again, press the <SEL/CANC> key and enter the correct letters.
3. When you have entered the word correctly, follow the remaining instructions in the appropriate section to set up the next telephone number or device you want to appear by **name** on the display. Press the <MENU> key to return to the top of the main menu of your system.

NOTE: The procedure for placing and receiving telephone calls in the Voice Control operating mode is explained in Section 11.1.2.

12.4 VOICE RESPONSES

Your **BUTLER-IN-A-BOX** comes with his own "personality," a male voice and 13 appropriate responses. We refer to this as his **"Prestored Voice."** The **Response** portion of your BUTLER includes the following 13 words from which he will randomly select an appropriate response:

- | | |
|--------------------------|------------------------------|
| 1. Hello | 8. OK Master |
| 2. May I help you? | 9. Right away |
| 3. Yes Master | 10. As you wish* |
| 4. Did you call?* | 11. I'm sorry |
| 5. Good night | 12. Please forgive me Master |
| 6. Good morning | 13. Please repeat |
| 7. OK | |

* See box on Page 12-11.

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You may change your BUTLER's voice and responses any time you wish without losing his original voice and responses. We refer to the voice and responses you enter as his "**Trained Voice.**" Let's assume you have given your BUTLER a female voice but would like to use the prestored male voice temporarily. You would go into the ***RESPONSE SECTION*** part of the menu and select the ***PRESTORED VOICE*** choice, and your BUTLER would again be able to use his original male voice. The female voice that you have entered yourself will not be lost and may be reused at any time by going to the menu selection ***TRAINED VOICE***. As you can see, you can give your BUTLER a dual personality at the press of a button.

If you choose to change his voice and responses, please follow these recommendations:

- A. For better clarity and sound, use an external microphone in the external microphone jack on the back of the unit (Figure 3-2).
- B. Listen to all of your BUTLER's original responses (see Section 12.6, Check A Word), which are listed on Page 12-10, and write them down as you hear them.
- C. After you've heard all responses, next to each one write a similar response you would like your BUTLER to say, **EXCEPT** for responses #4 and #10; those response locations are not available in the Trained Voice Section.* Each of your responses should be limited to less than 1 second, if possible; this will give you an optimal amount and variety of responses.

***NOTE: WORD LOCATIONS #4 & #10 ABOVE ARE NOT USED IN TRAINED VOICE. The TRAINED VOICE section will only allow eleven responses. See Example Below: Page 12-13**

12.4.1 RESPONSE-TYPE

Proceed with the following steps to choose the type response you wish your BUTLER to make:

- 1. Starting with ***OPERATIONS*** on the display panel, press the **<SEL/CANC>** key until ***RESPONSE SECTION*** appears, then press the **<ENTER>** key.
- 2. Press the **<SEL/CANC>** key until the display shows ***RESPONSE TYPE***; press the **<ENTER>** key.
- 3. ***PRESTORED VOICE?*** appears. Your BUTLER is asking if you want to use the prestored voice that comes with the unit. If that were your choice, you would press the **<ENTER>** key. You also have the option to:

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- a. Enter the **TRAIN SECTION** where you may enter your own responses. To do this, press the **<SEL/CANC>** key until ***TRAINED VOICE*** appears on the display; then press the **<ENTER>** key.
- b. Select a different voice from the prestored voice or your own. Press the **<SEL/CANC>** key and ***VOICE-CARTRIDGE*** will appear. This cartridge is an option for ordering custom celebrity voices for your BUTLER.
- c. Have no response, or a "silent" BUTLER. To do this press the **<SEL/CANC>** key until ***NO RESPONSE*** appears on the display; press the **<ENTER>** key. If this selection is made when in the Voice Control mode, your BUTLER will **NOT** verbally respond to you; however, all commands will be performed as usual.

12.5 CHANGE AND CHECK

This is your opportunity to create a different personality from the one that came with your BUTLER. By following the steps below, you may train your BUTLER to speak with your choice of responses. You will be entering his **TRAINED VOICE**, which may be male or female, speaking any language you wish and with any accent or dialect you wish. Entering voices into your unit does take some practice. Don't be disappointed if it doesn't work to your satisfaction the first time you try.

1. Starting with ***OPERATIONS*** on the display panel, press the **<SEL/CANC>** key until ***RESPONSE SECTION*** appears; then press the **<ENTER>** key.
2. Press the **<SEL/CANC>** key until ***RESPONSE TYPE*** shows on the display; press the **<ENTER>** key.
3. Now press the **<SEL/CANC>** key until ***TRAINED VOICE?*** appears. Press the **<ENTER>** key and you will see ***CHANGE & CHECK*** on the display again.
4. Press the **<ENTER>** key; ***CHANGE WORD#*** now appears. You are being requested to enter the number of the word response you wish to change.
5. Select the word number you wish to change, for example, Word #1. Press the **<1>** key, then the **<ENTER>** key. The words ***SECONDS LEFT: (1)*** will appear. This refers to the number of total seconds available for you to input the words your BUTLER will use to respond to you. Then within 1 second ***SAY WORD*** will appear on the display. At this time, in a loud, clear voice speak into the microphone whatever new word or phrase you want. Remember to keep the response less than 1 second, if possible.

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6. After you have spoken the word or phrase, you will see ***PLAYBACK WORD?*** on the display. If you want to instantly hear the word you have just spoken, press the **<ENTER>** key and you will hear that word repeated through your BUTLER. If you want to hear it a second time, press the **<ENTER>** key again. You may do this as as many times as you wish.
7. Once you are satisfied that your word or phrase is in the system correctly, press the **<SEL/CANC>** key and again the display will show ***CHANGE WORD#***. You may now enter another word number to change; you will repeat Steps 5 and 6.

NOTE: As you enter each word to change in Step 5, the number of seconds remaining will be reduced. The faster you speak and the shorter the phrases, the more responses your BUTLER will be able to use. Some practice will be necessary. Some Users may not be able to enter all 11 responses into the system because of the sound of their voice, the length of the words or phrases, and the speed at which they speak.

8. After you have made all the desired changes to your BUTLER's prestored responses, press the **<MENU>** key to exit this Response Section. If you want to check responses after they all have been entered, you would proceed with Section 12.6, **Check A Word**.

The **Response** portion of your BUTLER includes the following 11 words from which he will randomly select an appropriate response:

Example:

- | | |
|--------------------|-----------------------|
| 1. Hello | 7. OK Master |
| 2. May I help you? | 8. As you wish |
| 3. Yes Master | 9. I'm sorry |
| 4. Goodnight | 10. Please forgive me |
| 5. Good morning | 11. Please repeat |
| 6. OK | |

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12.6 CHECK A WORD

If you wish to check any response in your system, whether from the **Prestored Voice** that came with it or from the **Trained Voice** you've entered yourself, follow these steps:

1. Starting with ***OPERATIONS*** on the display, press the **<SEL/CANC>** key until ***RESPONSE SECTION*** appears; press the **<ENTER>** key.
2. ***CHANGE & CHECK*** is now displayed. Press the **<SEL/CANC>** key until ***CHECK A WORD*** appears; press the **<ENTER>** key.
3. The display now shows ***CHECK WORD#***. What word do you want to hear your BUTLER speak? Press the appropriate key (Word #1 would be the **<1>** key, Word #2 the **<2>** key, etc.), then press the **<ENTER>** key to hear the word. Follow this procedure for each word you want to hear. When you have heard all the words you want to check, simply press the **<MENU>** key to return to the top of the menu.

SECTION 13
INTERFACE REFERENCES

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On the back of BUTLER-IN-A-BOX are several I/O Ports (Input/Output Ports). Please refer to Figure 3-2. It is extremely important that you know the advantages and limitations of these individual interfaces because **improper use can cause poor operation or even damage your unit and can void the warranty.**

13.1 MICROPHONE JACK

Located on the bottom left corner is a small jack called the external microphone jack. You may put any standard mini plug jack microphone into this port and use it for inputting voice or voice recognition. **The type of microphones recommended are any standard self-powered electric microphone or any standard dynamic microphone.** Connecting a microphone to this jack will disconnect the built-in microphone of your unit.

Multiple microphones of the same type may be connected together and connected into this port, or this system may be plugged into an intercom system. However, the operation of your BUTLER **will be only as good as the noisiest room.** If you have a microphone in every room of the house and in one of the rooms a stereo is turned on at very high volume, your unit will be affected by that noise level and will not recognize or respond correctly, even though the other rooms are completely silent. The main purposes for the external microphone jack are as follows:

1. If you wish to change the voice and responses that came with your BUTLER, it is advisable to use an external microphone for better clarity (see Section 12.4).
2. If you wish to place your BUTLER next to a television or stereo where the noise level will be too high for the system's internal microphone to recognize your commands, you could use the external microphone jack to run another microphone to a more quiet part of the room.
3. If you're going to use your BUTLER in an extremely noisy environment and he isn't recognizing your commands at a distance, you may use a hand-held microphone or one that hangs around your neck so he will be able to hear you.
4. If you intend to speak to your BUTLER as you move around your home, it may be useful to have a built-in wireless microphone connected to your unit.

NOTE: If you have trained your BUTLER in Voice Control (Section 10) with one type of microphone and then switch to another type, your

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unit will need to be retrained. If you want your unit to work through an intercom system, you must teach your BUTLER through that intercom system for proper operation to take place. Consider that microphones are like the BUTLER's hearing aid and each microphone will have a different kind of sound and output. Therefore, if you do run multiple microphones they should all be the same type with the same impedance levels.

13.2 SPEAKER JACK

This is the jack located immediately to the right of the microphone jack. It allows you to output the sound or responses from the voice or telephone system through speakers other than the built-in one. Any connections through any standard mini plug to this jack will **disconnect your BUTLER's internal speaker to the system.** The rated output for this jack is 400 milliwatt power into any standard 8 OHM speaker. If you try to connect to something which requires more power output than this, **you will damage the unit and void your warranty.** It is possible to connect your unit to:

1. The input of your stereo system. If you want to give your BUTLER a fuller or much louder sound than the capability of its internal speaker, connecting it to the input of your stereo system will give you that sound flexibility.
2. An intercom system, so that when you speak to your BUTLER his responses can be heard throughout your home.

NOTE: In both of these cases, the output would be going into an amplifier that would drive the other speakers.

13.3 RS-232 PORT

The RS-232 Port gives your BUTLER the ability to store and recover information to any standard computer (see Sections 13.5 and 13.6). It can also control computers by voice using our additional Voice Mouse Software (see Section 15.3). The following is the pinout information for this RS-232 Port; only 3 of the 9 pins are used, and **the wiring must be done as if connecting computer to computer and NOT as if connecting computer to modem.**

Pin 2 is "receive" with the following electrical specifications:

- a. Typical input resistance = 5.4K OHMs.
- b. Expected input voltage for a logic 1 = -3 volts to -25 volts.
- c. Expected input voltage for a logic 0 = +3 volts to +25 volts.

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Pin 3 is "transmit" with the following electrical specifications:

- a. Typical off-source resistance = 300 OHMs.
- b. Output voltage for a logic 1 = -4.0 volts to -4.3 volts.
- c. Output voltage for a logic 0 = +3.5 volts to +3.9 volts.

Pin 7 is "ground."

COMMUNICATION PARAMETERS: The communication parameters for this serial port are 8 bit, 1 start, 2 stop, no parity.

13.4 AUXILIARY I/O PORT

This port is **NOT** a standard parallel port. It is a very specialized output port designed for use ONLY with an optional MASTERVOICE product, Model EU00, I/O Expansion Unit (see Section 15.3). **ANY OTHER ATTACHMENT TO THIS PORT WILL DAMAGE YOUR UNIT AND VOID YOUR WARRANTY.** This port will allow you to connect an analog type device to your BUTLER for his control or response, for example, watering your lawn; keeping your pool properly chlorinated; connecting or linking up with your master alarm system.

13.5 SAVING MEMORY

By the time you reach this part of the Owner's Guide you will have spent several hours setting up your BUTLER exactly the way you want him. In the event of a power failure you have battery backup protection up to 10 hours if you've used the expanded battery cable attachment; but beyond that time after a battery failure, all of your training and set ups would be lost. You can permanently save all of your BUTLER's memory except the Trained Voice Section by using the Save Memory feature of your system, which lets you store all of the other information, including recognition, timers, vocabularies, alarm set-ups, text set-ups and Prestored Voice Section on a floppy or hard disk of a host computer with any standard RS-232 port or a cartridge. The following is the step-by-step procedure for doing this:

1. Be sure that the baud rate on your host computer is set to match the same baud rate on your BUTLER (see Section 9.7, Setting Baud Rate).
2. Using any computer with a standard RS-232 port and some kind of standard communication package for that port, follow the connecting instructions in Section 13.3, RS-232 Port, and set the computer into the "receive" mode using the specifications in Section 13.3 under Communication Parameters.
3. Starting with *OPERATIONS* on the display panel, press the <SEL/CANC> key until *SPECIAL OPTIONS* appears; press the <ENTER> key.

* * * * * INTERFACE REFERENCES

4. Press the <SEL/CANC> key until ***SAVE MEMORY*** appears; press the <ENTER> key.
5. ***RAMPACK*** will be displayed. If you wish to save through the optional storage cartridge (I/O Port -- see Section 15.3), proceed with Step 6. If you wish to save through the RS-232 port, press the <SEL/CANC> key; ***RS-232*** will appear; now follow Step 6.
6. Make sure your computer is in the **"receive"** mode and is ready to receive information; then press the <ENTER> key.
7. The display panel will go blank and remain blank until the transmitting has been completed. Saving through the CARTRIDGE (I/O Port) will take approximately 2 minutes. When the memory has been saved, your BUTLER will say **"Hello,"** and the display will show ***SET UP TIMERS***. This means that everything in your BUTLER's memory has been stored onto your computer and may be retrieved at any time.

NOTE: With this Save Memory method it is possible to considerably increase the number of Users. For example, in a business or industry with different shifts, each shift could load its own recognition and responses before starting work and save them back to a computer at the end of the workday.

13.6 RESTORING MEMORY

In the event of a total power and battery backup failure, where all recognition and storage has been lost from your system, if you have previously stored the memory onto a computer (see Section 13.5), the following procedure will recover that lost information:

1. Be sure the baud rate of your host computer is set to match the same baud rate as your BUTLER (see Section 9.7, Setting Baud Rate). Connect the two systems according to instructions in 13.3, RS-232 Port.
2. Starting with ***OPERATIONS*** on the display, press the <SEL/CANC> key until ***SPECIAL OPTIONS*** appears; then press the <ENTER> key.
3. Press the <SEL/CANC> key until ***RESTORE MEMORY*** appears; press the <ENTER> key.
4. ***RAMPACK*** (I/O Port) will be displayed. If you wish to restore through the optional storage cartridge (see Section 15.3), follow Step 5. If you wish to restore from the RS-232 port, press the <SEL/CANC> key; ***RS-232*** will appear; press the <ENTER> key.

* * * * * INTERFACE REFERENCES

NOTE: Do NOT try to restore through the storage cartridge if you do not have this optional equipment; doing so will damage the memory and your BUTLER will no longer properly recognize information in the system.

5. *RECEIVE* is now on the display; press the <ENTER> key.
6. The display panel will go blank and remain blank until it has received all of the information from your computer. You must be in the "receive" mode before you start to transmit from the computer.
7. Using your computer's communication package, set the computer into the "transmit" mode. Call up the file where you have stored the recognition for your BUTLER and transmit.
8. When *OPERATIONS* appears on the display, all of your system's memory has been restored.

NOTE: If you have changed any setting on the back of your BUTLER since the memory was saved, the system may not operate properly when you restore the memory until you put that setting back to its former position. For instance, if you have raised or lowered the sensitivity level, it may need to be reset to its position at the time the memory was stored.

13.7 SPECIFICATIONS

Dimensions:

10-7/8" High x 8-3/4" Wide x 3-3/8" Deep.

Weight: 5.0 lbs.

Power Supply:

110 AC, 60 Hz, 20 watts, .2 amps.

General Information:

Number of Users: 4. Number of lamps or appliances: 32 by Voice Control; 32 by Timers; 256 by Manual Control. Number of telephone numbers: 16 per User; Number of words: approximately 270.

Operating Range (by voice): 10 to 15 feet (in "NORMAL" room noise).

Interface:

Serial port for optional interface to computers with RS-232 port.
I/O port for opening and shutting doors, interfacing to main security systems, and so forth.

External microphone jack for optional input from other microphones or intercom systems.

* * * * * INTERFACE REFERENCES

Interface (continued):

External speaker jack for optional output through stereo or intercom system.

Telephone: Pulse or tone dialing.

Compatibility:

Compatible with the X10 System; Radio Shack Plug'n Power; Sears Home Control System; Leviton Control System; G.E. Home Minder; and most other carrier current control systems.

Comes with 2 modules:

1 lamp, 1 appliance.

Memory Backup System:

9 volt battery or optional 12 volt battery (**not included**).

SECTION 14
SOLVING PROBLEMS

Contents

14.1	Care and Maintenance	14-2
14.2	Troubleshooting	14-2
14.3	System Reset	14-6

* * * * * SOLVING PROBLEMS

14.1 CARE AND MAINTENANCE

Your BUTLER-IN-A-BOX is designed to be essentially maintenance free, but some routine cleaning and care procedures will be necessary:

1. Clean the surface only with a soft cotton cloth and no abrasive material. Your BUTLER is made of highly polished plastic, and rough cloths, paper towels or any abrasive material will scratch it.
2. Cleaning substances that may be used are glass or window cleaning products or alcohol. **Never spray the substance directly onto the plexiglass front plate;** underneath the plate are a very sensitive microphone and a speaker that could be damaged by such contact. **Damage to the microphone or speaker caused by spraying cleaning substances on the front plate will void your warranty.** Spray the liquid on a soft cotton cloth, then wipe the surface of your unit.
3. The small circle on the top front corner of your BUTLER is made of a polyurethane material and can be easily damaged. Behind this circle is the infrared sensor used in the intrusion detection circuit. **Use extreme caution in this area; pressing too firmly on the circle will damage the sensor and will void your warranty.**
4. We recommend that you change the batteries in the battery backup section at least once every 6 months to assure proper battery level in the event of a power failure. **Remember to use only 9 volt alkaline type or equivalent batteries.**

14.2 TROUBLESHOOTING

Some situations that may seem to be problems can be easily resolved by very simple measures. The following is a selection table of things to look for before you call your dealer or the MASTERSERVICE SERVICE CENTER for a return authorization number to send your unit for repair.

* * * * * SOLVING PROBLEMS

SYMPTOM:	WHAT TO CHECK:
<p>Display does not light up.</p> <p>No sound out of speaker.</p> <p>Microphone not functioning.</p> <p>No response when pressing keys on keyboard.</p> <p>No recognition in Voice Control mode.</p>	<p>Be sure power cord is plugged in. If so and the display still will not light up, check power to the plug. (Try a lamp there!)</p> <p>1) Be sure the volume control on back of unit is set properly. 2) Be sure you don't have an external speaker system connected to the speaker output jack, as this will disconnect the internal speaker. 3) If you are in the Trained Voice mode, there will be no output from the speaker if you haven't yet entered a voice. If this is the case, be sure you check for sound using the factory set voice section.</p> <p>1) Check to see if red light on the front panel blinks when you whistle, snap your fingers or speak. If not, check the sensitivity control on back of unit to be sure it's not off or at a low setting. 2) Check external microphone jack to be sure that an external microphone was not left plugged into the back of your unit, as this will disconnect the internal microphone.</p> <p>1) Be certain that you're not in Alarm mode and the system frozen due to the Alarm mode setting. Follow alarm reset procedures in Section 12.2 and try keyboard again.</p> <p>1) Check sensitivity level on back of unit and be sure it is set properly. 2) The display should be <u>blinking</u> or <u>pulsing</u> slightly. If not, press the <MENU> key to reset the system and then return to Voice Control to try again. 3) If the <MENU> key won't respond, press the RESET button in the battery compartment of your unit.</p>

* * * * * SOLVING PROBLEMS

SYMPTOM:	WHAT TO CHECK:
System jumps out of Voice Control.	1) Be sure that the power cord is properly plugged into the wall. 2) Be sure that battery backup is installed properly. 3) Be sure that there are no power fluctuations on the line. This will occur if no battery backup is installed.
Alarm circuit not functioning.	Move hand in front of panel to see if the green light will blink with a 2-second delay. This is the walk-test light that may be used to check if the unit is seeing in a line of sight of approximately 30 to 40 feet. Be sure that nothing is blocking this circle on the top right-hand corner of the unit.
Alarm activation time.	The alarm is defaulted to activate in 60 seconds; if the room is noisy, actual activation time could be longer. If an asterisk (*) appears on the display, your BUTLER is hearing sounds that are slowing activation. Timing will return to normal when the room becomes quiet.
Alarm in Dialog Check	The alarm is the only device that can be turned on during Dialog Check. If you check the alarm vocabulary, you must deactivate the alarm afterwards.
Upon power up, something other than MASTERVOICE appears on display.	Return for service immediately. DO NOT ATTEMPT TO SERVICE YOURSELF AS THIS WILL VOID WARRANTY.
Devices do not respond to Voice Control, even though recognition is correct.	1) Enter the Manual Control mode of your system and try manual control of the devices. 2) If they work manually, check Device Set Up section of your system to be sure you have set up the devices with the proper House and Unit codes for the information being given in Voice Control. 3) If both of the above have been checked and are working properly, make sure the device is physically turned on at its own switch.

* * * * *

SOLVING PROBLEMS

SYMPTOM:	WHAT TO CHECK:
Timer does not activate device as it should.	<p>1) Be sure that device was set up in the Device Set Up section of the timers so that there is a device to activate and that you've properly set the ON time and days of the week it is supposed to work.</p> <p>2) Be sure that the device is physically turned on at its own switch.</p> <p>3) Be sure that the clock has the proper month and day set or it will not respond properly.</p>
In the Teach Section, the display shows "Say entry"; you comply, but it doesn't advance to the next word.	You have forgotton to do the Speaker Adaption phase. Until you've done this phase you will not be able to set up any of the vocabularies in the Teach Section (see Section 10.5, Speaker Adaption).
BUTLER doesn't recognize commands	Give commands immediately after asterisk (*) disappears from display. Check the sensitivity control; it may be too low. Refer to Section 6.4, Sensitivity Control. You may need to update the commands (see Section 10.8, Check and Learn); if this not solve the problem, retrain your BUTLER. If he does not accept commands during the retraining, notify MASTERVOICE.
Certain devices can't be controlled	This may be due to wiring in your home. Your unit must be operated on standard 110 AC current. Review Section 4.
Keyboard is nonoperational	Give your BUTLER a verbal command. If he doesn't respond, the unit may be in the alarm mode, which makes the keyboard nonoperational and also the unit will not respond to voice commands. Deactivate the alarm, if this is the case; see Page 12-8.
Default setting	Remember that your unit is default set to House Code A only for the ALL-OFF (Good night) command.
Frequent false triggering	Check sensitivity control (Section 6.4). If it's set correctly, check phone line; if open, buzzing will cause false triggering.

* * * * * SOLVING PROBLEMS

SYMPTOM:	WHAT TO CHECK:
Phone does not dial properly.	Be sure you are in the proper phone dialing mode, pulse or touch tone. The system is defaulted to touch tone; you may need to switch to pulse dialing. Also make sure you have stored the name in the Store Name Section and the phone number in the Store Number Section.
Phone does not hang up on busy signal or dial tone.	Contact your dealer. Your unit may have to be tuned for your area. The system has been set to the national standard for dial tone and busy signal; the tolerance, or accuracy, level for each telephone company may vary and be outside the capability range of your unit.
Hum or buzz in unit.	Check to see if the telephone line is open. If so, this will cause a high-pitched hum or buzz feedback from your unit. Close the line by pressing the MENU key twice or by voice control with this series of commands: Say your BUTLER's name; wait for his response; say "Telephone"; wait for his response and for the display to show OK/NO; say "OK."

14.3 SYSTEM RESET

If your system completely locks up, or freezes, and no longer functions when you press the <MENU> key or reacts when you press the red reset button in the battery compartment, it may be necessary to totally reset the system. If so, all stored recognition and memory in your BUTLER will be lost. This should be a very rare occurrence, but you need to know the procedure for resetting your system.

1. If your unit is using a battery backup, remove the battery from its compartment.
2. After removing the battery, unplug your unit and plug it in again. This will cause a total reset of your system.
3. Perform the tests in Section 5.2, Applying Power.
4. Reinstall the battery, following instructions in Section 5.3, Installing Battery Backup.
5. Retrain your BUTLER in accordance with all the pertinent instructions in this Owner's Guide.

SECTION 15
RELATED INFORMATION

Content

15.1	Who to Contact	15-2
15.2	Glossary of Terms	15-2
15.3	Accessories	15-4
15.4	Ordering Instructions	15-6

*** * * * * RELATED INFORMATION**

15.1 WHO TO CONTACT

FOR TECHNICAL SUPPORT - Refer to your Dealer/Distributor initially or contact MASTERVOICE at (213)594-6581 for technical assistance regarding interfacing, start-up, applications and malfunctions. Application support personnel answer this number weekdays from 8 a.m. to 5 p.m. Pacific Standard Time.

FOR REPAIR SERVICE - See your Service Information Guide (MASTERVOICE Owner's Guide Publication) for a Service Center, or your local dealer.

FOR ACCESSORIES - Contact your nearest Dealer or call MASTERVOICE at (213)594-6581. The MASTERVOICE Supply Center is located in Los Alamitos, California.

FOR TRAINING INFORMATION - MASTERVOICE offers scheduled classroom training and User application seminars on **BUTLER-IN-A-BOX**. Call (213)594-6581.

15.2 GLOSSARY OF TERMS

AC - Alternating current.

ALPHA - Characters of the alphabet, A through Z.

A.I.R. - Artificial Intelligent Recognizer.

ASCII CODE - American Standard Communication Information Interchange. The code representation of letters, numbers, characters and special controls that all computers use to communicate with each other.

BALANCING - Equalizing the BUTLER with other noise in the room so the unit can operate at your voice command.

BAUD RATE - The speed at which computers communicate with each other.

CARRIER CURRENT - Method used to transmit coded signals to lamp and appliance modules over existing household wiring.

CIRCUIT BREAKER - A device that automatically interrupts the flow of an electrical current.

CIRCUITRY - The electrical elements or system of the BUTLER.

COMMAND - Instruction given to the BUTLER in order for it to perform a specific task.

DEFAULT - Preset options which determine operation of the BUTLER, unless changed by the User.

* * * * * RELATED INFORMATION

DEVICE - Anything that the BUTLER can control.

DIALECT - The form of a spoken language peculiar to a region.

DISPLAY LEVEL - Level of brightness of information appearing on the BUTLER's display panel.

DISPLAY PANEL - 16 character, alpha-numeric vacuum fluorescent display at the top front of the BUTLER that acts as a window to give you operating information.

FOCUS TOLERANCE - Level setting for how precisely each word must be spoken to be recognized by your BUTLER.

FLUORESCENT LAMP - A glass tube coated on the inside with a fluorescent substance that gives off fluorescent light when mercury vapor in the tube is acted upon by a stream of electrons.

GROUNDING - The connection of an electrical conductor with the ground.

ILLUMINATION - Supplied or brightened with light.

INCANDESCENT LAMP - A lamp with a filament in a vacuum heated to incandescence by an electrical current.

INTERFACE - The linking of one computer system or peripheral to another.

INFRARED SENSOR - Device used in the BUTLER to detect the heat of moving objects.

INTERMITTENTLY - Stopping and starting at intervals.

I/O PORT - Input/output interface for connecting the BUTLER to the outside world.

MEMORY - A section of the BUTLER used for storing information.

MENU - List of options available for operating the BUTLER.

MODE - Method of operation.

MODULE - A separate unit used between the lamp or appliance and the wall receptacle to receive signals from the BUTLER.

PASS - The number of times required to repeat a word in the teaching of the BUTLER.

* * * * * RELATED INFORMATION

P.I.N. - Product Identification Number used for system entry.

RS-232 PORT - Used for interfacing to computer systems.

SCROLL - Moving in order through the menu options to see each option on the display panel.

SENSITIVITY- The BUTLER's susceptibility to the sound of a User's voice.

STORE - To record information in the system's memory.

USER - Person using the unit.

15.3 ACCESSORIES

MODEL #TR00 - TELEPHONE RESPONDER

Consists of one Telephone Responder/Controller and one Remote Telephone Transmitter. Plugs into standard telephone jack and standard 120V wall outlet. Enables you to telephone your home and turn on or off 8 lights and appliances. You can light, cool or heat your home before you arrive. (This is a stand-alone accessory; no attachment to your BUTLER is necessary.)

MODEL #TC00 - THERMOSTAT CONTROLLER

Reduces fuel costs for central heating and air conditioning by automatically controlling your thermostat, even when you are asleep or away from home. Installs in minutes without touching existing thermostat. Consists of one Temperature Regulator, one Low-Voltage Adaptor and one Appliance Module. Low-Voltage Adaptor is plugged into appliance module controlled in turn by your BUTLER or Telephone Responder/Controller.

MODEL #MX00 - MAXI CONTROLLER

Allows you to control from one convenient location up to 16 lights and appliances throughout your home at the touch of a button. Sends signals over your existing house wiring to modules. Can DIM and BRIGHTEN lights and turn all lights ON with one button if you hear a suspicious noise at night. Can turn everything OFF with one button when you go to bed. This is a stand-alone accessory; no attachment to your BUTLER is necessary.

MODEL #LM00 - LAMP MODULE

Turns lights on and off anywhere in the house by remote control. Responds to ALL LIGHTS ON, BRIGHT and DIM voice commands or manual control. Maximum rating: 300W; incandescent lamps only.

* * * * * RELATED INFORMATION

MODEL #AM00 - APPLIANCE MODULE (2-PIN)

Turns appliances on and off anywhere in the house by remote control. Does not respond to ALL LIGHTS ON, BRIGHT or DIM voice commands or manual control. Maximum rating: 15A. resistive, 500W lamps, 1/3 H.P. motors. (NOTE: 220 modules also are available.)

MODEL #AM01 - DRY CONTACT CLOSURE MODULE

Activates any device where a pushbutton could be used; for example to operate an electric door lock, to raise or lower a motorized bed, as an alarm interface to a control panel, etc. Module also allows normal operation as a 2-pin Appliance Module (see above). Handles up to 20 amps of current.

MODEL #AM03 - APPLIANCE MODULE (3-PIN)

Turns appliances on and off anywhere in the house by remote control. Does not respond to ALL LIGHTS ON, BRIGHT or DIM voice commands or manual control. Maximum rating: 15A. resistive, 500W lamps, 1/3 H.P. motors.

MODEL #RS00 - RS-232 CABLE

Allows for connection of the BUTLER to any computer with an RS-232 port. Uses include:

- a) Downloading data from BUTLER to computer so data can be stored on floppy disc.
- b) Uploading data stored on disc to BUTLER in the event power failure has caused a loss of memory in BUTLER.
- c) Control of home computers by voice when used in conjunction with Voice Mouse Software.

MODEL #VM00 - VOICE MOUSE SOFTWARE

Allows User to control home computer by voice. Now available for IBM and IBM compatible computers; available soon for other types of computers.

MODEL #WS00 - WALL SWITCH MODULE

Replaces existing wall switch. Turns any wall switch-operated lights on or off anywhere inside or outside the house. Responds to ALL LIGHTS ON, BRIGHT and DIM voice commands or manual control. Maximum rating: 500W, incandescent lights only.

MODEL #WS03 - 3-WAY WALL SWITCH SET

Controls lights operated by two switches. Maximum rating: 500W, incandescent lights only.

MODEL #WR00 - WALL RECEPTACLE MODULE

Replaces existing wall receptacle. Turns lights and appliances on and off by remote control. Does not respond to ALL LIGHTS ON, BRIGHT or DIM in voice or manual control. Maximum rating: 15A. unconditional.

*** * * * * RELATED INFORMATION**

MODEL #HD15 - HEAVY DUTY 220V 15A APPLIANCE MODULE

(Split-phase systems only.) Maximum rating: 15A. unconditional.

MODEL #HD20 - HEAVY DUTY 220V 20A APPLIANCE MODULE

(Split-phase systems only.) Maximum rating: 20A. unconditional.

MODEL #WM00 - WIRELESS MICROPHONE

Allows for low cost wireless voice communication with the Butler at distances greater than normal vocal range or from other rooms in the home. This microphone has a range of approximately 100 feet in most circumstances.

MODEL #WM01 - WIRELESS MICROPHONE (PROFESSIONAL TYPE)

This is a professional quality wireless microphone which operates similarly to the Model #WM00 above, but is much more sensitive. This is the recommended microphone for individuals who have difficulty in speaking above lower volume levels, though it is also an excellent microphone for persons who speak at normal volume as well. Range sufficient for any normal residence.

MODEL #AS00 - ALARM SIREN

Loud, shrieking-type alarm signal the BUTLER can activate in conjunction with intrusion detection system. Used with #AM00.

MODEL #HR00 - HAND-HELD REMOTE CONTROL SYSTEM

Controls up to a total of 8 lights and/or appliances from inside or outside your home, including from your car. Includes 1 transceiver/appliance module and 1 remote control transmitter. This is a stand-alone product; no attachment to your BUTLER is necessary.

MODEL #RCT0 - REMOTE CONTROL TRANSMITTER

Controls anything in your system from any room in the house. This is a stand-alone product, which can be wall-mounted, if you wish.

MODEL #SC00 - SPRINKLER CONTROLLER (available Fall 1988)

This device can either be used as a stand alone control or in conjunction with the Butler to automatically control lawn sprinklers, drip irrigation systems, etc. It automatically turns off the water when the ground is sufficiently moist (this is adjustable) or when it rains.

MODEL #RP00 - RAM PACK 7000

This device allows the user to store the Butler's memory for up to seven years. It is a re-usable RAM based storage cartridge containing a built-in (and replaceable) lithium battery. The RAM Pack will store most of the information in your Butler, including the Timer Section, Telephone Numbers, Devices (Set-up & Text), and Voice Recognition for up to four users.

15.4 ORDERING INSTRUCTIONS

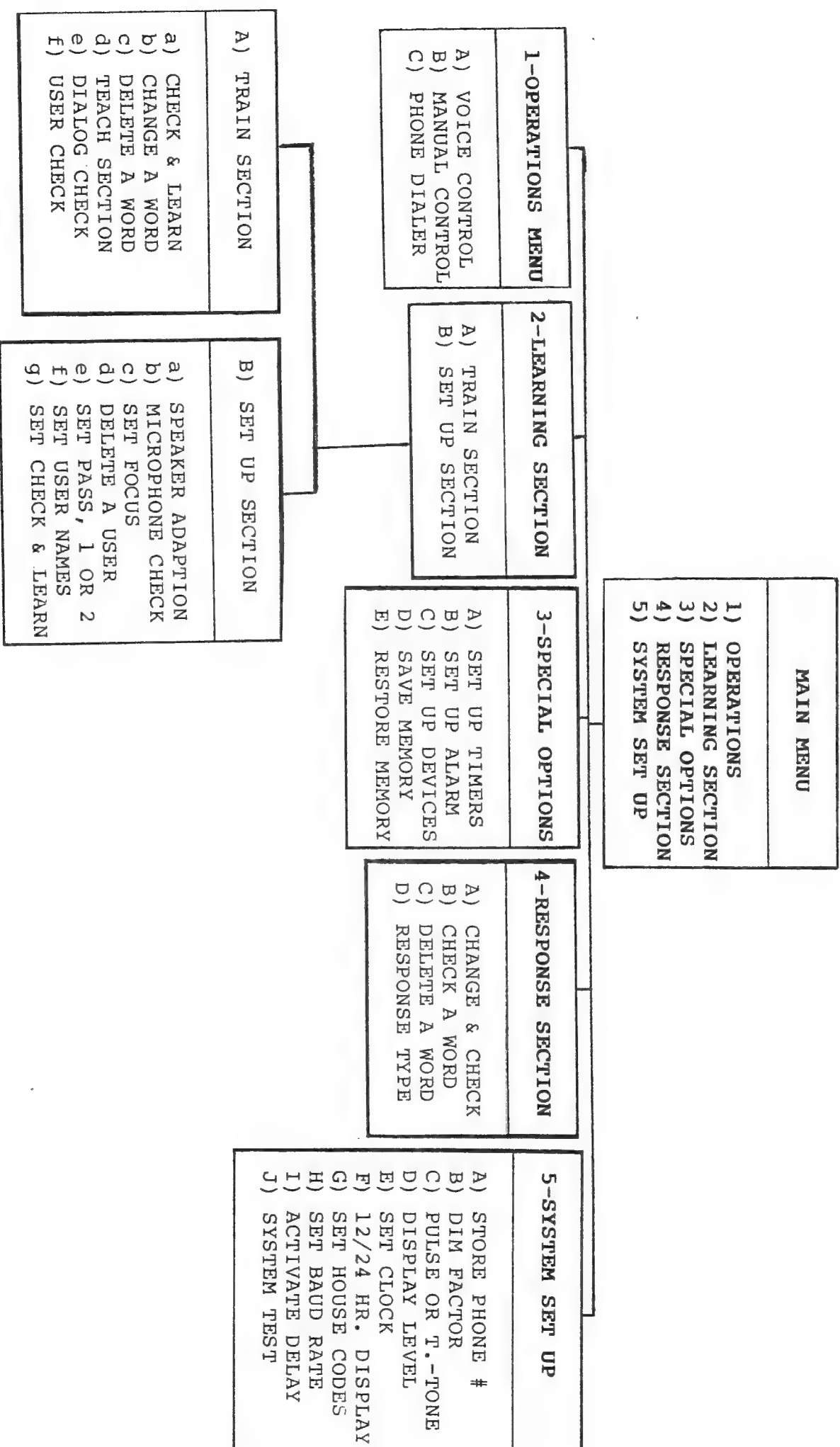
To order any accessories for your BUTLER-IN-A-BOX, contact your nearest dealer or distributor. If you do not know the nearest dealer or distributor, call MASTERSVOICE at (213) 594-6581 and we will refer you to the nearest dealer.

*** * * * * RELATED INFORMATION**

You may also write to us at:

MASTERVOICE
10523 Humbolt Street
Los Alamitos, California 90720
Attention: Customer Service

SYSTEM MENU FLOW CHART



SYSTEM MENU DESCRIPTIONS

OPERATIONS

VOICE CONTROL: Control of any device by voice commands.
MANUAL CONTROL: Control of any device by use of keyboard.
PHONE DIALER: Manual dialing of telephone, using keyboard.

LEARNING SECTION

TRAIN SECTION: Contains menu items used to teach the BUTLER words.
CHECK AND LEARN: Verify and improve BUTLER word recognition.
CHANGE A WORD: Change or add words to the system.
DELETE A WORD: Erase a word from the BUTLER's memory.
TEACH SECTION: Teach and store voice recognition vocabularies.
DIALOG CHECK: Check Voice Control without activating devices.
USER CHECK: Verify the BUTLER can properly identify each User.

SET UP SECTION: Contains menu options to prepare for Train Section.
SPEAKER ADAPTION: Allows BUTLER to learn User's voice.
MICROPHONE CHECK: Check vocal quality/volume for word training.
SET FOCUS: How precisely a word must be spoken to be understood.
DELETE A USER: Erase User from BUTLER's memory.
SET PASS, 1 OR 2: Whether words said once or twice in training.
SET USER NAMES: Change User ID from a number to a name.
SET CHECK AND LEARN: Set to either keyboard or vocal operation.

SPECIAL OPTIONS

SET UP TIMERS: Devices set to operate automatically by time.
SET UP ALARM: Determine the BUTLER's response to an intruder.
SET UP DEVICES: Specify the devices to be controlled by the BUTLER.
SAVE MEMORY: Store BUTLER's memory onto Ram Pack or computer.
RESTORE MEMORY: Retrieve BUTLER's memory from Ram Pack or computer.

RESPONSE SECTION

CHANGE AND CHECK: Enter and play back trained voice responses.
CHECK A WORD: Listen to a prestored or trained voice response.
RESPONSE TYPE: Determine between prestored or trained voice response.

SYSTEM SET UP

STORE PHONE #: Store telephone numbers to be dialed upon command.
DIM FACTOR: Set preference for predetermined dim level for lamps.
PULSE OR T. TONE: Methods of telephone dialing.
DISPLAY LEVEL: Set brightness level of display.
SET CLOCK: Set the current time, date and day of the week.
12/24 HOUR DISPLAY: 12 hr. (AM/PM) or 24 hr. (Military style) time.
SET HOUSE CODES: Determine which codes operate in "all on/off" modes.
SET BAUD RATE: Speed of communication between BUTLER and computer.
ACTIVATE DELAY: Set duration of Activate command.
SYSTEM TEST: Verify proper circuitry and memory functions.

SET UP FORM FOR VOCABULARIES

COMMANDS

- 1) ()
Entry Word
- 2) ()
Kill Word

- 3) NO!
- 4) DIM
- 5) BRIGHTER
- 6) ON
- 7) OFF PLEASE
- 8) LIGHTS ON
- 9) GOOD NIGHT
- 10) ACTIVATE

TELEPHONE

- 1) NO! (CANCEL)
- 2) OK!

- 3) #1 Police
- 4) #2 _____
- 5) #3 _____
- 6) #4 _____
- 7) #5 _____
- 8) #6 _____
- 9) #7 _____
- 10) #8 _____
- 11) #9 _____
- 12) #10 _____
- 13) #11 _____
- 14) #12 _____
- 15) #13 _____
- 16) #14 _____
- 17) #15 _____
- 18) #16 _____

ALARM

- 1) NO!
- 2) ON
- 3) OFF PLEASE
- 4) ()
Password)

DEVICES

- 1) NO!
- 2) ALARM
- 3) TELEPHONE
- 4) TABLE LAMP *DEVICE 1*
- 5) RADIO *DEVICE 2*
- 6) _____ *DEVICE 3*

*

Words 4 to 35 are the devices on the other side of this form and used for DEVICES 1-32 only.

DEVICE SET UP FORM

Device No.	(Default)	House Code	Unit Code	Ascii	Name
Device # 1	A-1	A	1		Lamp
Device # 2	A-2	A	2		Radio
Device # 3	A-3				
Device # 4	A-4				
Device # 5	A-5				
Device # 6	A-6				
Device # 7	A-7				
Device # 8	A-8				
Device # 9	A-9				
Device # 10	A-10				
Device # 11	A-11				
Device # 12	A-12				
Device # 13	A-13				
Device # 14	A-14				
Device # 15	A-15				
Device # 16	A-16				
Device # 17	B-1				
Device # 18	B-2				
Device # 19	B-3				
Device # 20	B-4				
Device # 21	B-5				
Device # 22	B-6				
Device # 23	B-7				
Device # 24	B-8				
Device # 25	B-9				
Device # 26	B-10				
Device # 27	B-11				
Device # 28	B-12				
Device # 29	B-13				
Device # 30	B-14				
Device # 31	B-15				
Device # 32	B-16				
Device # 33	C-1				
Device # 34	C-2				
Device # 35	C-3				
Device # 36	C-4				
Device # 37	C-5				
Device # 38	C-6				
Device # 39	C-7				
Device # 40	C-8				
Device # 41	C-9				
Device # 42	C-10				
Device # 43	C-11				
Device # 44	C-12				
Device # 45	C-13				
Device # 46	C-14				
Device # 47	C-15				
Device # 48	C-16				
Device # 49	D-1				
Device # 50	D-2				
Device # 51	D-3				
Device # 52	D-4				
Device # 53	D-5				
Device # 54	D-6				
Device # 55	D-7				
Device # 56	D-8				
Device # 57	D-9				
Device # 58	D-10				
Device # 59	D-11				
Device # 60	D-12				
Device # 61	D-13				
Device # 62	D-14				
Device # 63	D-15				
Device # 64	D-16				

{Voice}
{Section}
{1 to 32}
{Only}

{Timer}
{Section}
{1 to 64}

TIMERS

MASTER SCHEDULE

SET-UP FORM

TIMER NUMBER	OPERATIONS		DEVICE REFERENCE		LIFE SPAN		TIME FUNCTIONS	
	TIMER ACTION	DAY OF WEEK TIMER USED	DEVICE No. & DISCRPTION	HOUSE UNIT CODE CODE	START DATE MONTH & DAY	STOP DATE MONTH & DAY	TURN ON TIME	TURN OFF TIME
TIMER NUMBER 1								
TIMER NUMBER 2								
TIMER NUMBER 3								
TIMER NUMBER 4								
TIMER NUMBER 5								
TIMER NUMBER 6								
TIMER NUMBER 7								
TIMER NUMBER 8								
TIMER NUMBER 9								
TIMER NUMBER 10								
TIMER NUMBER 11								
TIMER NUMBER 12								
TIMER NUMBER 13								
TIMER NUMBER 14								
TIMER NUMBER 15								
TIMER NUMBER 16								
TIMER NUMBER 17								
TIMER NUMBER 18								
TIMER NUMBER 19								
TIMER NUMBER 20								

MASTERAVOICE INC.

10523 HUMBOLT ST.

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213/594-6581

MASTER SCHEDULE
SET-UP FORM[illegible]

MASTEROVICE INC.
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213/594-6581

TIMERS

MASTER SCHEDULE
SET-UP FORM

TIMER NUMBER	OPERATIONS		DEVICE REFERENCE		LIFE SPAN		TIME FUNCTIONS	
	TIMER ACTION	DAY OF WEEK TIMER USED	DEVICE NO. & DISCRPTION	HOUSE UNIT CODE CODE	START DATE MONTH & DAY	STOP DATE MONTH & DAY	TURN ON TIME	TURN OFF TIME
TIMER NUMBER 1								
TIMER NUMBER 2								
TIMER NUMBER 3								
TIMER NUMBER 4								
TIMER NUMBER 5								
TIMER NUMBER 6								
TIMER NUMBER 7								
TIMER NUMBER 8								
TIMER NUMBER 9								
TIMER NUMBER 10								
TIMER NUMBER 11								
TIMER NUMBER 12								
TIMER NUMBER 13								
TIMER NUMBER 14								
TIMER NUMBER 15								
TIMER NUMBER 16								
TIMER NUMBER 17								
TIMER NUMBER 18								
TIMER NUMBER 19								
TIMER NUMBER 20								

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TIMERS

MASTER SCHEDULE

SET-UP FORM

TIMER NUMBER	OPERATIONS		DEVICE REFERENCE		LIFE SPAN		TIME FUNCTIONS	
	TIMER ACTION	DAY OF WEEK TIMER USED	DEVICE No. & DISCRIPTION	HOUSE UNIT CODE CODE	START DATE MONTH & DAY	STOP DATE MONTH & DAY	TURN ON TIME	TURN OFF TIME
TIMER NUMBER 21								
TIMER NUMBER 22								
TIMER NUMBER 23								
TIMER NUMBER 24								
TIMER NUMBER 25								
TIMER NUMBER 26								
TIMER NUMBER 27								
TIMER NUMBER 28								
TIMER NUMBER 29								
TIMER NUMBER 30								
TIMER NUMBER 31								
TIMER NUMBER 32								

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